ISSN : 2313-4919
Recognized by BM & DC

Ad-din Sakina Women's Medical College Journal

Volume 4 Number 1 January 2023

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Official Journal of
Ad-din Sakina Women's Medical College
www.aswmc.edu.bd

Ad-din Sakina Women's Medical College Journal

Published by
Principal
Editorial Board
Ad-din Sakina Women's Medical College
Pulerhat, Jashore-7402. Phone: 0421-71743
Email: principalaswmc@gmail.com
Pulerhat, Jashore

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Editor-in-Chief
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Email: drmarufabio@gmail.com
WhatsApp: 01715219963

REGARDING THE JOUNAL

Full Name of the Journal	Ad-din Sakina Women's Medical College Journal
Abbreviated Form	*ASWMCJ*
Type of Publication	Peer Reviewed, Bi-Annual
Published by	Ad-din Sakina Women's Medical College
ISSN No.	2313-4919
Recogtion	BM & DC
Address	Pulerhat, Jashore-7402, Bangladesh

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• Present results in a logical sequence in text, table and illustration with most important finding first
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• Reviews are evidence-based articles about a specific topic using relevant citations from the most recent literature with the authors' conclusions on this subject
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Editorial

Computer Vision Syndrome

*Uddin GM

Computer vision syndrome (CVS) is the combination of eye and vision problem associated with the use of computers, laptop, tab, smartphones and other electronic devices. About 90% computer users experience visual symptoms which may include eyestrain, headache, tired eyes, dry eyes, redness, blurred vision, ocular discomfort and double vision collectively referred to as computer vision syndrome.[1] Majority of researchers addressed the question of radiation levels from video display terminals (VDTs), known to emit many types of radiation including x-ray radiation, optical radiation, and radio frequency radiation.

Non ocular symptoms include headache, pain in the shoulder, neck or back. All of these ocular and extra ocular problems interfere health and work environment of the people in the developing countries like Bangladesh where high temperature, rapid digitalization are the major factors. The computer related vision symptoms have been divided into four main categories namely asthenopic, ocular surface related, visual and extra ocular.

Prolonged VDTs usage has been shown to cause diminished power of accommodation, removal of near points of convergence and deviation of phoria for near vision; known as asthenopic symptoms.[2] Ocular surface related symptoms denotes when computer users complaint of eye dryness, burning, grittiness or heaviness after an extended period of time at the computer.[3]

Dry eye may be a primary cause of ocular fatigue. Several factors are responsible to dry eyes such as environmental factor, reduced blink rate, increased exposure, age, systemic disease, systemic medications and use of contact lens. The cornea is very sensitive to drying and chemical imbalances from environmental factors. Other factors in an office environment includes: dry air, ventilation fans, airborne paper dust, laser and photo copy toner.[4] Normal blink rate is 10-15 times per minute. But when we use VDTs this rate is significantly less than the normal. This reduced blink rate contributes to a poor tear film quality and temporary stresses of the cornea causing symptom of dry eyes. Computer users view their reading material in a horizontal gaze resulting a wider palpebral fissure and an increased surface area exposed to the effects of evaporation. Tear production normally decreases with age. Post-menopausal women usually suffer from dry eyes. Systemic disease Like Sjogren's syndrome patients suffer from dry mouth and rheumatoid arthritis, associate with dry eyes. Some systemic medications including diuretic, anti-histamine, psychotropic and anti-hypertensive are associated with dry eyes. Office workers wearing contact lenses and cosmetic users are found to suffer severity of ocular discomfort.

Visual symptoms of CVS is caused by display quality, lighting and glare and radiation. Poor display quality leads to visual discomfort. Visual performance is affected by various display parameters, like character size, structure, style and by image contrast and stability. Improper lighting conditions of a workstation can affect computer users' ocular comfort. Radiation emission from VDTs is responsible for hazardous effects on computer users.

Treatment of CVS requires a multidirectional approach. Proper lighting within the computer room area will enable the user to improve visual comfort and eliminate visual fatigue. Postural distortions often lead to pain in the back, neck and shoulder. So it is important to properly distance the monitor and maintain proper height. Regular breaks in the computer work can improve work efficiency and decrease in work discomfort.[5]

One of the most simple and therapeutic modes of therapy is lubricating eye drop to relive the symptoms of dry eyes due to decreased blink rate. Computer eyeglasses (anti-glare filters) can improve visual comfort. Computer screen should be usually 24 inches away and slightly below the primary gaze.

A careful history and examination should focus a relation between computer usage and ocular complaints. Best treatment includes modifications in the ergonomics of the workstation, spectates correction, environmental and lighting factors and properly scheduled work breaks from video screens. To most of us, computer have become an irreplaceable necessity in our lives at work and home. As we become conscious about the CVS, we will further protect our ocular health.

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References:

1. Blehm C, Vishnu S, Khattak A, Mitra S, Yee RW. Computer vision syndrome: a review. Surv Ophthalmol. 2005 May-Jun;50(3):253-262.

2. Trusiewicz D, Niesłuchowska M, Makszewska-Chetnik Z. [Eye-strain symptoms after work with a computer screen]. Klin Oczna. 1995 Nov-Dec;97(11-12):343-345.

3. Bachman WG. Computer-specific spectacle lens design preference of presbyopic operators. J Occup Med. 1992 Oct;34(10):1023-1027.

4. Carter JB, Banister EW. Musculoskeletal problems in VDT work: a review. Ergonomics. 1994 Oct;37(10):1623-1648.

5. Sellers D. 25 steps to Safe Computing. Berkeley, CA: Peachpit Press;1995.

Original Article

Clinical Presentation and Operative Findings of Tubal Pregnancy Cases in Bangladeshi Population - A Cross Sectional Study

***Husne H[1], Hasanur R [2], Tahmina A[3]**

Abstract

Background: *Implantation of a fertilized egg outside the uterine cavity can lead to a life threatening medical emergency. The incidence of ectopic pregnancy is increasing. Improved diagnostic facilities aided in decreased rate of case fatality however, the prompt diagnosis still remains as a major challenge.* ***Objective:*** *This study intends to observe the incidence, predisposing factors, clinical presentation, and management of ectopic pregnancy.* ***Materials & Methods:*** *A cross sectional study has been undertaken among 50 purposively selected diagnosed cases of ectopic pregnancies admitted in the Department of Obstetrics and Gynaecology, Combined Military Hospital (CMH), Dhaka during the period of 1 year from August 2021 to July 2022. Face to face interview and evaluation of medical records were used to collect data.* ***Results:*** *The ectopic pregnancy rate was 10.88/1000 pregnancies. Age group of 21-30 years found to be prevalent with 70% of the cases. History of abortion and MR (46%), and pelvic infection (18%) found to be most common risk factors. Majority of the respondents presented with abdominal pain (88.0%), pervaginal bleeding (78.0%), and history of amenorrhea (74.0%). More than half of the respondents (56.0%) presented with hypovolemic shock. Abdominal tenderness and anemia was evident in 86.0% and 66.0% of the cases respectively. Ruptured ectopic pregnancy was 76.0% of the cases. Unilateral salpingectomy (48.0%) and unilateral salpingectomy with contralateral tubal ligation (32.0%) were the common surgical intervention applied in this sample* ***Conclusion:*** *In this study case fatality due to ectopic pregnancy was nil despite of very high incidence of ruptured tube cases.*

Keywords: Ectopic pregnancy, Tubal pregnancy, Risk factors.

Received: 12.10.2022, **Accepted:** 17.12.2022.

Ad-din Sakina Women's Medical College Journal. 2023; 4 (1) : 03-09

Introduction

Ectopic pregnancy defined as implantation of embryonic tissue external to the uterus or to an atypical implantation site of the uterus. If remained unidentified and untreated, this condition can lead to significant risks of morbidity and fatality.[1] Ectopic pregnancies are often challenging to diagnose promptly which has significant contribution on the patient outcome. An acute rupture of the tube following an implantation is very common which is an important cause of first trimester maternal death.[2] In order to correctly diagnose an ectopic pregnancy, thorough history taking and physical examination are crucial along with linking them with the lab findings.[3] Ectopic pregnancy is estimated to occur at a rate of 1 to 2%, however, patients who undergoes assisted reproductive technologies they face it at a rate of 2 to 5%. Tubal ectopic pregnancies are the most common ones, while the ampullary region of the fallopian tube being the most frequent site of implantation; in less than 10% of the ectopic pregnancy cases, the implantation occurs in non-tubal sites such as, in the abdominal cavity, ovary, cervix, myometrium or interstitial portion.[4] In Bangladesh, the prevalence of this phenomenon ranged from 1.3% to 21% in various single centered studies.[5–7] Abdominal or pelvic pain, amenorrhea, and vaginal bleeding are the main symptoms of an ectopic implantation; other symptoms include, gastrointestinal symptoms, dizziness, syncopal attack, shoulder-tip pain, and pain during micturition or defecation.[8] History of abortion and MR, pelvic inflammatory disease, previ-

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ous ectopic pregnancy, infertility treatment, intrauterine contraceptive device, lower abdominal surgeries are common risk factors of a tubal pregnancy in our country.[5,6,9]

Over the past three decades, ectopic pregnancy has become more common, especially in developing nations where early detection is less common.[5] In the context of our country, maternal conditions like ectopic pregnancy can put women in great health risks due to limited access to skilled healthcare providers and diagnostic facilities.[10] Also, the awareness on reproductive health and the health seeking attitude of women is poor due to socio-economical context of our country.[11] Additionally, ectopic pregnancy can have long-term implications for a woman's fertility. Therefore, in absence of nationally representative data of the current knowledge on prevalence of ectopic pregnancy, this study aims to evaluate clinical presentations, exposure history of risk factors and operative findings of tubal pregnancy.

Materials & Methods

This study was a descriptive cross-sectional study commenced in the Department of Obstetrics and; Gynaecology Combined Military Hospital (CMH), Dhaka during the period of August 2021 to July 2022. Women with diagnosed cases of ectopic pregnancy, who were admitted in the respective hospital was purposively selected as target population. Cases of tubal pregnancy- ruptured or unruptured, presenting with or without shock, and chronic ectopic pregnancy or subacute or old ectopic pregnancy have been included in this study. Cases of abdominal pregnancy, cervical pregnancy ovarian pregnancy and pregnancy in uterine cornua remained excluded. Completed data from 50 samples have been evaluated in this study for different patterns of clinical presentations of ectopic pregnancy in respect to their operative findings.

A pretested semi-structured questionnaire has been applied to collect data. Data was collected through face to face interview and checking medical records. Data was analyzed using IBM-SPSS software version 25.

Results

During the study period the Department of Obstetrics and; Gynaecology, Combined Military Hospital (CMH), Dhaka admitted 13,505 obstetric cases, among whom, 147 cases of ectopic pregnancy was recorded, making the incidence rate of 10.88/1000 pregnancies (Table 1). Completed data of 50 tubal pregnancies have been presented in this study.

Table:I Prevalence of Tubal pregnancy (August 2021-July 2022) in Combined Military Hospital (CMH)

Total no. of admitted Obstetric patients	Total no. of Tubal pregnancy	Rate/1000 pregnancy
13,505	147	10.88

Table:II Background characteristics of the patients (N=50)

Age group (years)	No. of cases	Percentages
<20	2	4%
21-30	35	70%
>30	13	26%
Parity		
P-0	14	28%
P-1	12	24%
P-2	09	18%
P-3	08	16%
P-4	05	10%
P≥5	02	04%

The age group of 20 to 30 found to be prevalent with 70.0% of the tubal pregnancy cases in this study. With increase of parity the prevalence of this phenomenon showed to occur less, first pregnancy issues showed to account for the highest frequency **(Table 2)**.

Upon evaluating the past medical history, abortion or menstruation regulation was recorded in 46.0% of the respondents. Pelvic infection was the second most important risk factor reported in 18.0% of the cases. History of infertility, pelvic surgery and previous ectopic pregnancy were reported in 14.0%, 4.0%, and 2.0% of the cases. Among the mentioned contraceptive methods, IUCD insertion was recorded in 4.0% of the cases **(Table 3)**.

Table III: Risk factors of ectopic pregnancy among the patients (N=50)

Risk factors		No. of cases	Percentages
H/O Previous abortion/MP		23	46%
Pelvic infection		09	18%
H/O infertility		07	14%
Any pelvic surgery		02	04%
H/O ectopic pregnancy		01	02%
Contraceptive methods	Without contraception	15	30%
	Oral pill	10	20%
	H/O IUCD insertion	02	04%
	Barrier method	11	22%
	Injectable contraception	12	24%

Majority of the respondents presented with abdominal pain (88.0%), pervaginal bleeding (78.0%), and history of amenorrhea (74.0%). More than half of the respondents (56.0%) were in hypovolemic shock during admission. Abdominal tenderness and anemia was evident in 86.0% and 66.0% of the cases respectively. Cervical exhibition test was positive for 48% of the cases. Adnexal mass and fullness of Pouch of Douglas was palpable in 10.0% and 54.0% of the cases respectively **(Table 4).**

Table IV: Presenting features and clinical findings of the patients (N=50)

Symptoms		No. of cases	Percentages
Abdominal pain		44	88%
Pervaginal bleeding		29	78%
Shock		28	56%
Syncopal attack		07	14%
Vomiting		08	16%
H/O amenorrhea		37	74%
Duration of amenorrhea	05-08 weeks	27	54%
	09-12 weeks	08	16%
	>12 weeks	02	04%
Signs			
Abdominal tenderness		43	86%
Anemia		33	66%
Cervical exhibition test		24	48%
Adnexal mass		05	10%
The fullness of Pouch of Douglas		27	54%

During surgical management it was seen that, in 66.0% of the cases right sided fallopian tube was affected. The ampulla was the most common site of implantation (68.0%) in the tubal pregnancy cases of this study. Additionally, in 20.0% of the cases, isthmus and in 4.0% of the cases the interstitial part of the tube found to be implanted with the embryo. In 8,0% of the cases the opposite sided tube appeared unhealthy. Blood in peritoneal cavity was present in 86.0% of the cases. Peritubular adhesion was found in 16.0% of the cases **(Table 5).**

Table V: Operative findings of the patients (N=50)

Symptoms		No. of cases	Percentages
Tube affected	Right	33	66%
	Left	17	34%
Site	Ampulla	34	68%
	Isthmus	10	20%
	Interstitial part	02	04%
Condition of the opposite tube	Normal looking	38	76%
	Unhealthy	04	08%
Blood in peritoneal cavity		43	86%
Peritubular adhesion		08	16%

Figure 1: Tubal status of the affected tube

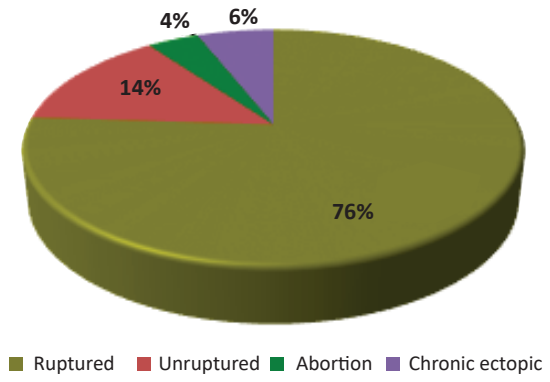
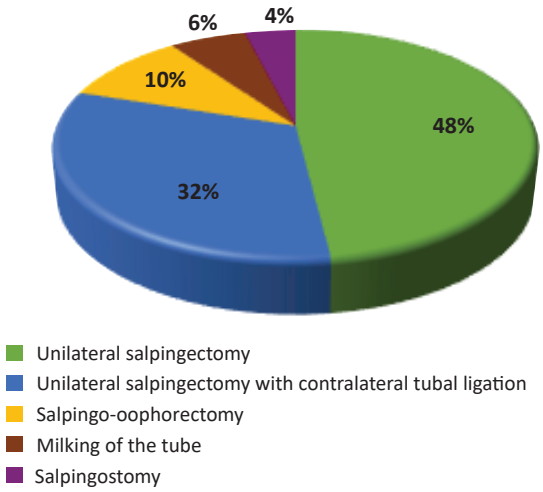


Figure 2: Surgical Mnangemets of the patients



In this study, 76.0% of the cases were ruptured ectopic pregnancy (Figure 1). In 48.0% of the cases unilateral salpingectomy was done and in 32.0% cases unilateral salpingectomy with contralateral tubal ligation was done as surgical managements of the cases. In few cases salpingo-oophorectomy (10.0%), milking of the tube (6.0%) and salpingostomy (4.0%) was done **(Figure 2).**

Discussion

Ectopic pregnancy is a significant contributor of first trimester mortality and morbidity requiring for immediate surgical intervention in most cases. In situations where the acting physician fails to diagnose an ectopic pregnancy, or if the patient delays to come to under clinical attention, there is a high odds that the area where the fertilized egg implanted will rupture or put up with other types of damage.

During the study period the rate of ectopic pregnancy was recorded at 10.88/1000 pregnancies which is considerably higher than what has been previously reported in other national and international studies.[4,5,7,12] However, Fatema et al. found a higher prevalence in a tertiary care center in Bangladesh (21.6/1000 pregnancies) compared to the present study.[6] Increased access to improved diagnostic facilities may contributing in representation of higher prevalence[13] However, increased prevalence of the risk factors of ectopic pregnancy are also in an increased trend, that can attribute to the increased prevalence. Such as, most cases of ectopic pregnancies are associated with history of prior damage to the fallopian tube, these factors include previous pelvic or abdominal surgery and pelvic infection.[14–16] This study showed that, 46.0% of the respondents had past medical history of abortion or menstruation regulation and 18.0% of the cases had history of pelvic infection. In various other studies these factors found to be common risk aggravating causes of ectopic pregnancies.[5–7] Previous studies denoted induced abortion as a well identified risk factor of subse-

quent extrauterine implantation of fetus.[17,18] Additionally, pelvic inflammatory disease is a common risk factor for ectopic pregnancy.[19] In this study, 20 to 30 years of respondents accounted for 70% of the cases. In a previous study, age group of 20-24 years found to account for 42.0% of the ectopic pregnancy cases which we found parallel to our findings, which is also true for most studies conducted in developing countries.[12] As the younger group of population are more sexually active thus they are at higher risk of such conditions.[4] In this study, it has been seen that, with increase of parity the prevalence of ectopic pregnancies tend to be less prevalent. However, other findings suggest that, multiparous women are more susceptible to have ectopic pregnancy than low parity women.[20]

In this study, majority of the respondents presented with abdominal pain (88.0%), pervaginal bleeding (78.0%), and history of amenorrhea (74.0%). More than half of the respondents (56.0%) were in hypovolemic shock during admission. Abdominal tenderness and anemia was evident in 86.0% and 66.0% of the cases respectively. Cervical exhibition test was positive for 48% of the cases. Adnexal mass and fullness of Pouch of Douglas was palpable in 10.0% and 54.0% of the cases respectively. Similar case presentation was evident among other studies who exhibited patient sign and symptoms.[7]

During surgical management it was seen that, in 66.0% of the cases right sided fallopian tube was affected which also found in other studies.[21] The ampulla was the most common site of implantation (68.0%) in the tubal pregnancy cases of this study. Additionally, in 20.0% of the cases, isthmus and in 4.0% of the cases the interstitial part of the tube found to be implanted with the embryo. These sites are the commonly stated sites of ectopic implantation in literatures for ectopic pregnancies.[5,7] In this study, 76.0% of the cases were ruptured ectopic pregnancy which corresponds the findings of Sefogah et al. where they found that 71.3% of the ectopic pregnancies presented with a ruptured tube.[22] In 48.0% of the cases unilateral salpingectomy was done and in 32.0% cases unilateral salpingectomy with contralateral tubal ligation was done as surgical managements of the cases. Unilateral salpingectomy is the most commonly performed surgical intervention for the management of the cases with ectopic pregnancies.[7,9]

Ethical Issues

After getting the approval of the research proposal from Bangladesh College of Physicians & Surgeons (BCPS), ethical clearance was taken from the ethical committee of Combined Military Hospital (CMH), Dhaka. Written informed consent was taken from the patients before data collection. Confidentiality of the data was strictly maintained

Limitation

This study only used a small sample from one hospital, making it difficult to extrapolate the results to the national level.

Conclusion & Recommendation

In this study no case fatality due to ectopic pregnancy has been recorded however the prevalence rate found to be high. Multicenter study with larger sample size will be able to depict the national prevalence which is crucial to take plan and actions regarding establishing prompt diagnostic facilities nationwide and to create vast awareness.

References

1. Mummert T, Gnugnoli DM. Ectopic Pregnancy. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 [cited 2023 Jun 27]. Available from: http://www.ncbi.nlm.nih.gov/-books/NBK539860/

2. Houser M, Kandalaft N, Khati NJ. Ectopic pregnancy: a resident's guide to imaging findings and diagnostic pitfalls. Emerg Radiol. 2022

Feb;29(1):161-172. doi: 10.1007/s10140-021-01974-7. Epub 2021 Oct 7. PMID: 34618256.

3. Andola S, Kumar R R, Desai RM, S.A K. Study of Risk factors and treatment modalities of ectopic pregnancy. J Family Med Prim Care. 2021 Feb;10(2):724–729.

4. Panelli DM, Phillips CH, Brady PC. Incidence, diagnosis and management of tubal and nontubal ectopic pregnancies: a review. Fertil Res Pract. 2015;1:15.

5. Yeasmin MS, Uddin MJ, Hasan E. A Clinical Study of Ectopic Pregnancies in a Tertiary Care Hospital of Chittagong, Bangladesh. Chattagram Maa-O-Shishu Hospital Medical College Journal. 2014 Nov 28;13(3):1–4.

6. Fatema N, Munira S, Hasan KM, Ferdosh Z, Mahmud NI, Khatun S. Incidence, Socio-demographic Characteristics and Predisposing Factors of Ectopic Pregnancy attended at a Private Tertiary Care Hospital in Dhaka City. Journal of National Institute of Neurosciences Bangladesh. 2020 Jul 5;6(1):59–63.

7. Islam, Nazia. Diagnostic Clues and Management of ectopic Pregnancy in Sir Salimullah Medical College and Mitford Hospital, Dhaka. Bangladesh Journal of Obstetrics & Gynaecology. 2020;33(1): 49-53. 10.3329/bjog.v33i1.43545.

8. NICE guideline. Overview | Ectopic pregnancy and miscarriage: diagnosis and initial management | Guidance | NICE [Internet]. NICE; 2019 [cited 2023 Jun 28]. Available from: https://www.nice.org.uk/guidance/ng126

9. Akter S, Sultana S. Management of Ectopic Pregnancy in a Tertiary Care Hospital by Surgery. Bangladesh Journal of Obstetrics & Gynaecology. 2013;28(1):21–25.

10. Koenig MA, Jamil K, Streatfield PK, Saha T, Al-Sabir A, El Arifeen S, et al. Maternal health and care-seeking behavior in Bangladesh: findings from a national survey. Int Fam Plan Perspect. 2007 Jun;33(2):75–82.

11. Shahabuddin A, Nöstlinger C, Delvaux T, Sarker M, Delamou A, Bardají A, et al. Exploring Maternal Health Care-Seeking Behavior of Married Adolescent Girls in Bangladesh: A Social-Ecological Approach. PLOS ONE. 2017 Jan 17;12(1): e0169109.

12. Harish K. M., Shwetha N., Nalini N. Incidence and risk factors associated with ectopic pregnancy: a prospectve study. Int J Reprod Contracept Obstet Gynecol.2021;10(2):703-706. DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20210007

13. Kulp JL, Barnhart KT. Ectopic Pregnancy: Diagnosis and Management. Womens Health (Lond Engl). 2008 Jan 1;4(1):79–87.

14. Singh S, G M, S V, Pukale RS. Clinical Study of Ectopic Pregnancy in a Rural Setup: A Two Year Survey. Nati J Med Res. 2014;4(1):37–39.

15. Mufti S, Rather S, Rangrez RA, Wasiqa, Khalida. Ectopic pregnancy: An analysis of 114 cases. JK Practitioner. 2012 Oct 1;17:20–23.

16. Moini A, Hosseini R, Jahangiri N, Shiva M, Akhoond MR. Risk factors for ectopic pregnancy: A case–control study. J Res Med Sci. 2014 Sep;19(9):844–849.

17. Tharaux-Deneux C, Bouyer J, Job-Spira N, Coste J, Spira A. Risk of ectopic pregnancy and previous induced abortion. Am J Public Health. 1998 Mar;88(3):401–405.

18. Hogue CJ. Long-Term Risks of Surgical Abortion. GLOWM [Internet]. 2009 [cited 2023 Jun 28]; Available from: https://www.glowm.com/section-view/item/440

19. Huang CC, Huang CC, Lin SY, Chang CYY, Lin WC, Chung CH, et al. Association of pelvic inflammatory disease (PID) with ectopic pregnancy and

preterm labor in Taiwan: A nationwide population-based retrospective cohort study. PLoS One. 2019 Aug 13;14(8):e0219351.

20. Laxmi RC. Annual analysis of ectopic pregnancy in tertiary care hospital. PMJN. 2011 Jan 1;11:5–8.

21. Crowe CJ, Vigneswaran K, Merritt S, Hamilton J. P05.07: Where is my ectopic pregnancy?: Electronic Poster (P) Abstracts. Ultrasound Obstet Gynecol. 2012 Sep;40(S1):188–188.

22. Sefogah PE, Oduro NE, Swarray-Deen A, Nuamah HG, Takyi RB, Nuamah MA, Oppong SA. Factors Associated with Ruptured Ectopic Pregnancy: A 10-Year Review at a District Hospital in Ghana. Obstet Gynecol Int. 2022 Mar 7;2022:1491419. doi: 10.1155/2022/1491419. PMID: 35295562; PMCID: PMC8920631.

Original Article

Association between Self-rated Physical Activity and Academic Performance among Medical Students of Bangladesh

***Nargis S[1], Sultana A[2], Sen S[3], Sultana S[4], Ghosh E[5]**

Abstract

Background: *Physical activity has many positive benefits not only in the physical state but also stimulates brain activity and influences cognitive function leading to better academic performance.* ***Aims and Objectives:*** *To find out the association between self-rated physical activity and academic performance among medical students of Bangladesh.* ***Materials and Methods:*** *This cross-sectional study was conducted among 200 medical students from a selected medical college in Bangladesh, during a period of one year from January 2022 to December 2022. A semi-structured questionnaire, checklist, and International Physical Activity Questionnaire Short Form (IPAQ-SF) were used to collect the data.* ***Results:*** *50%, rated their physical activity levels as "Sedentary". A further 43% rated their physical activity levels as "Low", while only 7% rated their physical activity levels as "Moderate" levels of physical activity & self-rated academic performance of the 200 participants in this study, the majority rated their performance as "good" 56.5%, followed by "average" 41.0% & 2.5% rated their performance as "excellent". However, overall stastical findings suggest that self-rated physical activity and academic performance were linked.*

Keywords: Self- rated physical activity, Academic performance, Medical student.

Received: 14.12.2022, **Accepted:** 25.12.2022.

Ad-din Sakina Women's Medical College Journal. 2023; 4 (1) : 10-15

Introduction

Self-rated physical activity refers to an individual's subjective assessment of his or her own level of physical activity & self-rated academic performance refers to an individual's subjective assessment of their own academic abilities, achievements, and overall performance. Regular physical exercise is crucial for not only conditioning various parts of the body but also for promoting better health and sustaining fitness, especially during the process of physical rehabilitation. Engaging in physical activity on a regular basis offers a wide range of benefits that can positively affect one's overall well-being.[1] Regular physical activity is proven to help prevent and manage non-communicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being.[2] The academic performance of students is the key feature [3] and one of the important goals[4] of education, which can be defined as the knowledge gained by the student which is assessed by marks by a teacher and/or educational goals set by students and teachers to be achieved over a specific period of time. Studies have shown that medical students experience a high level of stress during their undergraduate course.[5] High levels of stress may have a negative effect on the cognitive functioning and learning of students in medical school.[6] A medical student's academic performance attracts the attention of all those involved in medical education. Many medi-

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cal education stakeholders are concerned about students' performances as it reflects their various areas of interest. According to [7] those stakeholders are not only faculty members but also medical school selection committees, curriculum planners, and instructional designers. Physical activity has a direct impact on the behavior and development of the brain. Physical activity can improve brain function. It increases the flow of oxygen to the brain. The number of brain neurotransmitters is increased, which assists one's ability to focus, concentrate, learn, remember, and handle stress. The number of brain-derived neurotrophins is increased, which assures the survival of brain neurons that are essential for learning, memory, and higher thinking.[8] There was substantial evidence that physical activity can help improve academic performance, including grades and standardized test scores. Physical activity can have an impact on cognitive skills and attitudes and academic behavior, all of which are important components of improved academic performance. These include enhanced concentration and attention as well as improved classroom behavior. Increasing or maintaining time dedicated to physical education may help, and does not appear to adversely impact, academic performance.[9] This study aimed to explore the physical activity level among undergraduate medical students and to determine the relationship of this health status to their academic achievement. The findings of this study will contribute to the existing literature on the relationship between self- rated physical activity and academic performance among medical students in Bangladesh.

Materials & Methods

This cross-sectional descriptive study was conducted to assess the association between self-rated physical activity and academic performances among the medical students of Bangladesh. A total of 200 students participated in this study from a selected medical college of Bangladesh from January 2022 to December 2022 using a pretested semi-structured self-administered questionnaire. Informed written consent was taken before taking any interview. After collection of the questionnaires were checked for any inconsistency of data and corrected manually . Then the data were entered into SPSS version 19. Descriptive analysis was performed to calculate mean, standard deviations, frequencies and percentages using the SPSS software. A P-value of < 0.05 considered statistically significant. The data were presented by tables with necessary descriptions and statistical analysis for easy understanding and comparisons.

Results

The cross-sectional study was conducted among 200 medical students to assess their physical activity regarding age, the majority of the respondents fell within the age range of 22-24 years old, accounting for 60% of the respondents, followed by 36.5% who were aged between 19-21 years old, and only 3.5% who were aged between 25-27 years old. Mean± SD age in years was 22.04 ± 1.37, as shown in **Table 1.**

Table:I Distribution of the respondents by age. n=200

Age (In years)	Age of the respondents	
	Frequency	Percent
19 – 21	73	36.5
22 – 24	120	60.0
25 – 27	7	3.5
Total	200	100.0
Statistics	Mean ± SD = 22.04± 1.37, Minimum age=19 years, Maximum age = 27 years,	

Table: II Self-rated physical activity of the respondents. n=200

Self-rated physical activity	Frequency	Percent
Sedentary	100	50.0
Low	86	43.0
Moderate	14	7.0
Total	200	100.0

Among the all respondents (200), the majority of respondents, 50%, rated their physical activity levels as "Sedentary". A further 43% rated their physical activity levels as "Low", while only 7% rated their physical activity levels as "Moderate" which is shown in Table 2.

Table: III Self-rated academic performance of the respondents. n=200

Self-rated academic performance	Frequency	Percent
Excellent	5	2.5
Good	113	56.5
Average	82	41.0
Total	200	100.0

Table 3 shows the self-rated academic performance of the 200 participants in this study, the majority rated their performance as "good" (56.5%), followed by "average" (41.0%). A small proportion of participants (2.5%) rated their performance as "excellent."

Table 4 shows the distribution of self-rated physical fitness among 200 medical students who participated in the study. The majority of medical students (52.5%) rated their physical fitness level as good, followed by 30.5% rating it as fair, and 16.0% rating it as poor. Only 1.0% of medical students rated their physical fitness level as very good.

Table: IV Self-rated physical fitness level of the medical students. n=200

Self-rated physical activity	Frequency	Percent
Poor	32	16.0
Fair	61	30.5
Good	105	52.5
Very good	2	1.0
Total	200	100.0

Table: V Perception of physical activity's impact on academic performance among medical students.

Perception of physical activity's impact on academic performance	Frequency	Percent
Yes	146	73.0
No	23	11.5
Not sure	31	15.5
Total	200	100.0

Table 5 shows medical students' perception of the impact of their physical activity routine on their academic performance. Out of the 200 medical students surveyed, 146 (73.0%) believed that their physical activity routine has a positive impact on their academic performance. 23 (11.5%) did not believe that physical activity has any impact on their academic performance, while 31 (15.5%) were not sure.

Table: VI Distribution of the medical students by self-rated physical activity and self-rated academic performances.

Self-rated physical activity	Self-rated academic performance			Statistical inference
	Excellent	Good	Average	
Sedentary	3 (3.0%)	45 (45%)	52 (52%)	Pearson Chi-square value = 11.02 *p* value = .017
Low	2 (2.3%)	59 (68.6%)	25 (29.1%)	
Moderate	0 (0.0%)	9 (64.3%)	5(35.7%)	
Total	5 (2.5%)	113 (56.5%)	82 (41%)	
Fisher's Exact test p-value was taken to see the level of significance as cells of 2 by 2 table have expected value < 5.				

Table 6 shows there was a significant association between self-rated physical activity levels and self-rated academic performance (p=.017). Specifically, sedentary participants were more likely to have an average academic performance (52%), followed by the good academic performance (45%), and excellent academic performance (3%). In contrast, low physical activity participants had a higher likelihood of good academic performance (68.6%), followed by the average academic performance (29.1%), and a very low likelihood of excellent academic performance (2.3%). Similarly, moderate physical activity participants had a higher likelihood of good academic performance (64.3%), followed by the average academic performance (35.7%), and no participant reported excellent academic performance.Table 6 shows there was a significant association between self-rated physical activity levels and self-rated academic performance (p = .017). Specifically, sedentary participants were more likely to have an average academic performance (52%), followed by the good academic performance (45%), and excellent academic performance (3%). In contrast, low physical activity participants had a higher likelihood of good academic performance (68.6%), followed by the average academic performance (29.1%), and a very low likelihood of excellent academic performance (2.3%). Similarly, moderate physical activity participants had a higher likelihood of good academic performance (64.3%), followed by the average academic performance (35.7%), and no participant reported excellent academic performance.

Discussion

This cross-sectional study was carried out at Ad-din Sakina Women's Medical College Jashore to assess the association between self- rated physical activity and academic performance among medical students in Bangladesh among 200 respondents. The research results indicated that most (60%) of the participants were between the ages of 22 to 24 years old. Regarding self-rated physical activity, it was found that 50% respondents rated their physical activity levels as "Sedentary". Where 43% and 7% rated their physical activity levels as "Low", and "Moderate" respectively. This highlights the need for interventions to promote physical activity, as low levels of physical activity are associated with an increased risk for chronic diseases. In another study it was showed that sedentary behavior was associated with a range of negative health outcomes, including increased risk of chronic diseases such as cardiovascular disease, type 2 diabetes, and some cancers.[10] Regarding self-rated academic performance, it was found that majority rated their performance as "good" (56.5%), followed by "average" (41.0%). Only a small proportion of participants (2.5%) rated their performance as "excellent. It is important to note that self-rated performance is subjective and may not always reflect objective measures of academic achievement. Overall, the data on self-rated academic performance suggests that most participants are confident in their abilities and are performing at a level that they consider satisfactory or better. The study found that a majority of medical students rated their physical fitness level

as good (52.5%). However, a significant proportion rated their fitness level as fair (30.5%) or poor (16.0%), suggesting that there is room for improvement in terms of physical activity levels among medical students. Only a small percentage of students rated their fitness level as very good (1.0%), indicating the need for interventions to promote physical activity and improve overall fitness levels among this population. Regarding perception of the relationship between physical activity and academic performance, the study found that a majority of the participants (73.0%) believed that physical activity had a positive impact on their academic performance, indicating a positive attitude towards the benefits of exercise. On the other hand, a small proportion (11.5%) did not believe that physical activity had any impact on their academic performance, and a larger percentage (15.5%) were uncertain, suggesting a lack of knowledge or awareness of the potential benefits of physical activity on academic performance. But in terms of self-rated physical activity levels and self-rated academic performance, there was a significant association with higher levels of physical activity being associated with better academic performance. Another study found that there was positive association between fitness level and academic performance.[11]

Conclusion

This study finds significant association between self-rated physical activity and academic performances of the medical students of Bangladesh. Medical colleges in Bangladesh should include physical activity programs into their curricula and provide facilities to support increased physical activity among students. Further research should also be conducted to explore the factors that contribute to low physical activity levels among this population.

References

1. Shantakumar, S. R., Sahabdeen, H. Bin, Abidin, F. A. B. Z., Perumal, G., & Kumar, N. Associaton of type and duraton of exercise with the mental and physical health and academic performance of Medical undergraduate students - Cross-sectonal study. Bangladesh Journal of Medical Science. 2022;21(1):135–139. https://www.banglajol.info/index.php/BJMS/artcle/view/56339.

2. WHO. (2021). What is physical activity. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/physical-activity

3. Rono, K., Onderi, H., & Owino, J. Percep tons of Causes of poor Academic Performance amongst selected Secondary Schools in Kericho Sub-County: Implicatons for School Manage ment. Kenya Journal of Educatonal Planning, Economics & Management. 2014;7(2)

4. Nargis N, Thompson ME, Fong GT, Driezen P et al. Prevalence and Patterns of Tobacco Use in Bangladesh from 2009 to 2012: Evidence from International Tobacco Control (ITC) Study. PLoS One. 2015 Nov 11;10(11):e0141135. doi: 10.1371/journal.pone.0141135.PMID: 26559051; PMCID: PMC4641679.

5. Rosal MC, Ockene IS, Ockene JK, Barrett SV et al. A longitudinal study of students' depression at one medical school. Acad Med. 1997 Jun;72(6): 542-546. doi: 10.1097/00001888-199706000-00022. PMID: 9200590.

6. Dahlin M, Joneborg N, Runeson B. Stress and depression among medical students: a cross-sectional study. Med Educ. 2005 Jun;39(6):594-604. doi: 10.1111/j.1365-2929.2005.02176.x. PMID: 15910436.

7. Alfayez SF, Strand DA, Carline JD. Academic, social and cultural factors influencing medical school grade performance. Med Educ. 1990 May;24(3):230-238. doi: 10.1111/-

j.1365-2923.1990.tb00006.x. PMID: 2355866.

8. Wiseman, E. (2021). How physical activity affects school performance. LiteracyPlanet. https://www.literacyplanet.com/blog/how-physical-activity-affects-school-performance/

9. U.S. Department of Health and Human Services. (2010). The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance (Issue April).

10. de Rezende LF, Rodrigues Lopes M, Rey-López JP et al. Sedentary behavior and health outcomes: an overview of systematic reviews. PLoS One. 2014 Aug 21;9(8):e105620. doi: 10.1371/journal.pone.0105620. PMID: 25144686; PMCID: PMC4140795.

11. Bezold CP, Konty KJ, Day SE et al. The effects of changes in physical fitness on academic performance among New York City youth. J Adolesc Health. 2014 Dec;55(6):774-81. doi: 10.1016/j.jadohealth.2014.06.006. Epub 2014 Jul 31. PMID: 25088395; PMCID: PMC5421374.

Original Article

Prescribing Pattern of Antihypertensive Medications at Outpatient Department of Medicine in a Medical College Hospital of Dhaka city

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Abstract

Background: *Hypertension is a global problem which endangers an individual for cardiovascular and cerebrovascular mortality, morbidity as well as renal decompensation. Irrationality in treating hypertension is creating physical and economic burden. To facilitate the rational use of drugs it is important to assess the prescription patterns over time.* ***Objective:*** *To evaluate the prescribing pattern of anti-hypertensive medication at outpatient department of Medicine in a medical college hospital of Dhaka city.* ***Materials and Methods:*** *A cross sectional study was carried out at the OPD of medicine in a medical college hospital of Dhaka city to approach the prescribing pattern of antihypertensive medications during the period of June 2022 to August 2022.* ***Results:*** *In the present study, 48.3% patients receive monotherapy while 51.6% receive combination therapy; calcium channel blockers were most commonly prescribed, similarly angiotensin receptor blocker + calcium channel blocker were most frequently used combination therapy.* ***Conclusion:*** *In the study it was found that calcium channel blockers and angiotensin receptor blockers were the most commonly prescribed antihypertensive drugs as monotherapy and combination therapy.*

Keywords: Anti-hypertensive, Angiotensin recptor blocker, Calcium channel blocker.

Received: 10.11.2022, **Accepted:** 17.11.2022.

Ad-din Sakina Women's Medical College Journal. 2023; 4 (1) : 16-19

Introduction

Hypertension is a long term medical condition without producing any overt sign symptoms which endanger an individual for cerebrovascular and cardiovascular mortality and morbidity as well as renal decompensation. Hypertension is diagnosed when there is sustained elevation of systolic blood pressure >/= 140 mm-Hg accompanied by diastolic blood pressure >/= 90 mm-Hg. According to International Society of Hypertension blood pressure is classified into 4 categories that is normal (<130/85 mm-Hg), high-normal (130-139/85-89 mm-Hg), grade1 (140-159/90-99 mm-Hg) and grade2 (>/= 160/100 mm-Hg).[1] The risk of cardiovascular events among hypertensive patients varies greatly depending on the number of co-existing risk factors. Among individuals with hypertension 40% of the coronary events in men and 68% of the coronary events in women observed.[2] It was found that 13% of men and 20% of women presented with isolated hypertension.[3] Updated treatment of hypertension with monotherapy and combination therapy is interchanging time to time according to Joint National Committee I to VII guideline.[4]

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Materials and methods

A cross sectional study was conducted in Medicine department of Ad-din Women's Medical College Hospital Dhaka from 01.06.22 to 31.08.22 to approach the antihypertensive prescribing pattern. Total number of hypertensive patient was 89. Among them 49 were male and 40 were female. The age group of the patient; 17 were <40 year, 27 were <41-49 year, and 45 were >65 year.

Regarding comorbidity 21 having concomitant disease while 68 without any other comorbidity.

Results

During the study total number of sample was 89 in which 49 (55%) were male and 40 (45%) were female. 43 patient were treated with monotherapy (Table-1), on the other hand 46 were treated with combination therapy. As monotherapy Calcium Channel Blocker (28%) was the most commonly prescribed drug, second most common antihypertensive was Angiotensin Receptor Blocker (22%) followed by Angiotensinogen Converting Enzyme Inhibitor (13%) as monotherapy. As combination therapy 5 (5.6%) were treated with Calcium Channel Blocker + beta blocker, 6 (6.7%) treated with Angiotensin Receptor Blocker + Calcium Channel Blocker. Similarly 4 (4.4%) patient treated with combination of diuretics + Calcium Channel Blocker, while 3(3.3%) were treated with Angiotensin Receptor Blocker + beta blocker. Meanwhile combination of alpha blocker+ beta blocker and alpha blocker + Calcium Channel Blocker was not prescribed (Table-2). In this study, mild to moderate hypertensive patient were treated mostly with monotherapy, and patient with moderate to severe hypertension and patient who have not controlled with single drug were treated with combination therapy (Table-3).

Table: I Characteristics of the Study Sample (n=89)

Variables	Number	Percentages (%)
Male	49	55
Female	40	45
Age group		
<40 Years	17	19.1
41-49 Years	27	30.3
>60 Years	45	50.6
Antihypertensive monotherapy	43	48.3
Antihypertensive combination therapy	46	51.6
Comorbidities (Present)	21	23.6
Comorbidities (Absent)	68	76.4

Table: II Prescribing pattern of Anti-hypertensive medication

Group of Anti-hypertensive	Number	Percentages (%)
Calcium Channel Blocker	25	28
Angiotensin Receptor Blocker	20	22
Angiotensinogen Converting Enzyme Inhibitor	12	13
Diuretics	07	7.8
Angiotensin Receptor Blocker + Calcium Channel Blocker	06	6.7%
Beta blocker	05	5.6%
Calcium Channel Blocker + Beta Blocker	05	5.6%
Diuretics+ Calcium Channel Blocker	04	4.5%
Angiotensin Receptor Blocker+ Beta blocker	02	3.3%
Alpha Blocker	01	3.3%
Alpha Blocker + Beta Blocker	00	0.0%
Alpha Blocker+Calcium Channel Blocker	00	0.0%

Table: II Prescribing pattern of Anti-hypertensive medication

Grade of Hypertension	Frequency of Mono/ Combination Therapy	Percentages (%)
Mild to Moderate Hypertension	Mono therapy =71	80
Moderate to Severe Hypertension	Combination Therapy=18	20

Mild Hypertension: Systolic: 140-159 mmHg and Diastolic: 90-99 mmHg, Moderate Hypertension: Systolic: 160-179 mmHg and Diastolic: 100-109 mmHg, Severe Hypertension: Systolic: ≥ 180 mmHg and Diastolic: ≥ 110 mmHg.

Discussion:

In This study the antihypertensive user male patient prevalence was 55% and female patient prevalence was 45%. So male prevalence is more in comparison to female which match up with previous study done by Rajeev et al.[5] In present study combination therapy is most commonly prescribed. However it was observed that monotherapy is more common than combination therapy which correlates with the study done by Kuchake et al.[6] It is seen that patient who were not controlled with monotherapy is treated with combination therapy which result was better.[7] In this study as monotherapy agent Calcium Channel Blocker was most commonly used which correlates with the previous study done by Noahjarari et al.[8] and other antihypertensive agent as monotherapy is Angiotensin Receptor Blocker, Angiotensinogen Converting Enzyme Inhibitor, diuretics, beta blocker and alpha blocker. These agents are used according to presence or absence of comorbidities like diabetes, bronchial asthma, heart failure etc. Prescription oriented survey is considered to be one of the most effective methods to assess and evaluate the prescribing attitude of physician.[9] Continuous supervision of systematic audit is necessary which provides feedback from the physician and helps promote rational use of drugs.[10]

Conclusion

In the study it was found that calcium channel blockers and angiotensin receptor blockers were the most commonly prescribed antihypertensive drug as monotherapy and combination therapy. Large scale study with regular interval and institutional comparison is advocated of improvement of anti-hypertensive prescribing.

References

1. Nugroho P, Andrew H, Kohar K, Noor CA, Sutranto AL. Comparison between the world health organization (WHO) and international society of hypertension (ISH) guidelines for hypertension. Ann Med. 2022 Dec;54(1):837-845.

2. Neutel GM, Smith D, Weber M. Is high blood pressure a late manifestation of hypertension syndrome? Am J Hypertens. 1999;12(12 Pt 3):215S-223S.

3. Rudnichi A, Safar M, Asmar R, Guize L, Benetos A. Prevalance of cardiovascular risk factor. J Hyertens suppl. 1998;16(1):S85-90.

4. Shirley C, Nagavi BG. Impact of community pharmacy based patient education on the quality of life of hypertensive patients. Indian J Pharm Educ Res. 2007;41(2):164-169.

5. Mishra R, Kesarwani P, Keshari SS. Prescription pattern of antihypertensive drugs in a tertiary care teaching hospital. Int J Med Sci Public Health. 2017;6(4):684-686.

6. Kuchake VG, Maheshwari OD, Surana SJ, Patil PH, Dighore PN. Prescription pattern of antihypertensive drugs in uncomplicated hypertensive patients at teaching hospital, Indian J Pharm

Pract. 2009;2(2):74-80.

7. Hansson L, Dahlöf B, Gudbrandsson T, Hellsing T, Kullman S, Kuylenstierna J, et al. Antihypertensive effect of felodipine or hydralazine when added to beta-blocker therapy. J Cardiovasc Pharmacol. 1988;12(1):94-101.

8. Jarari N, Rao N, Peela JR, Ellafi KA, Shakila S, Said AR, Nelapalli NK, Min Y, Tun KD, Jamallulail SI, Rawal AK, Ramanujam R, Yedla RN, Kandregula DK, Argi A, Peela LT. A review on prescribing patterns of antihypertensive drugs. Clin Hypertens. 2016;27:22:27.

9. Yuen YH, Chang S, Chong CK, Lee SC, Critchley JA, Chan JC. Drug utilization in a hospital general medical outpatient clinic with particular reference to antihypertensive and antidiabetic drugs. J Clin Pharm Ther. 1998;23(4):287-294.

10. Tiwari H, Kumar A, Kulkarn SK. Prescription monitoring of anti-hypertensive drug utilization at the Panjab University Health Centre in India. Singapore Med J. 2004; 45(3):117-120.

Original Article

Platelet Count in Preeclampsia, Eclampsia and Normal Pregnancy

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Abstract

Background: *The most important cause of maternal and perinatal morbidity and mortality is hypertensive disorder (preeclampsia and eclampsia). In preeclampsia and eclampsia, there is hypercoagulable state which acts as a risk factor for thromboembolism and disseminated intravascular coagulation (DIC).* ***Objective:*** *This study was carried out to compare the coagulation indices in normal pregnancy, preeclampsia and eclampsia.* ***Materials and Methods:*** *This cross sectional study was conducted in Dhaka Medical College. Total 150 women aged 18 – 40 years were selected for this study. Among them 50 normal pregnant, 50 preeclamptic and 50 eclamptic women were selected as study group and age matched 50 healthy nonpregnant women were considered as control group. Platelet count was analyzed on automated hematology analyzer.* ***Results****: In this study, platelet count was significantly lower in preeclamptic and eclamptic women than those of healthy nonpregnant women.* ***Conclusion:*** *From this study it can be concluded that platelet count decreased in preeclampsia, eclampsia and normal pregnancy.*

Keywords: Preeclampsia, Eclampsia, Platelet count.

Received: 06.12.2022, **Accepted:** 11.12.2022.

Ad-din Sakina Women's Medical College Journal. 2023; 4 (1) : 20-23

Introduction

Preeclampsia is a pregnancy specific, idiopathic multisystem disorder characterized by the development of hypertension and proteinuria after the 20 weeks of gestation.[1,2] Worldwide, the incidence of preeclampsia ranges between 2-10% of pregnancies.[3]

Preeclampsia when associated with convulsion known as eclampsia.[3] Eclampsia is clinically characterized by a chronic, gradual process that begins with the development of preeclampsia and results in generalized convulsions or coma. But, in approximately 15-20% of cases, the onset of eclampsia may be abrupt without previous evidence of preeclampsia.[2] Overall 10-15% of direct maternal mortality is associated with preeclampsia and eclampsia.[4]

Preeclampsia creates a functional derangement of multiple organ system. Complications of preeclampsia include eclampsia, placental abruption, ascities, hepatic infarction and rupture, intra-abdominal bleeding, pulmonary edema and acute renal failure. Complications affecting the developing fetus include intrauterine growth retardation, prematurity, oligohydramnios, bronchopulmonary dysplasia and increased risk of perinatal death.[2] Preeclampsia is an important obstetric problem and is associated with a five-fold increase in perinatal mortality.[5]

During normal pregnancy profound changes occur in the coagulation and fibrinolytic system of the mother causing a hypercoagulable state which accentuate in preeclampsia.[6] Coagulation abnormalities such as thrombocytopenia and decrease in some plasma clotting factors may develop in preeclampsia.[7]

Coagulation abnormalities may cause life threatening condition like disseminated intravascular

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coagulation (DIC) and hemolysis, elevated liver enzymes, and low platelets (HELP) syndrome. Monitoring of coagulation parameters may help to overcome these complications.[7]

Platelets are essential for primary hemostasis and endothelial repair. Platelet function can be determined by its size, shape and number.[9] Altered platelet count, size and function have been reported in patients with preeclampsia.[1,10] In preeclampsia there is increase in platelet size and thrombocytopenia. The incidence and degree of thrombocytopenia varies with degree of disease process. Several studies have demonstrated decreased platelet count in preeclampsia and eclampsia.[6, 7, 11] This thrombocytopenia is mainly responsible for increased maternal and fetal mortality and morbidity in preeclampsia.[11, 12]

Platelets play a major role in pathogenesis of preeclampsia by releasing thromboxane A2 which promotes vasospasm, induces supplementary platelet aggregation and endothelial damage. This leads to platelet dysfunction and promoting platelet consumption resulting in thrombocytopenia, which is an important sign of severe preeclampsia. In preeclampsia, there is also decreased production of prostacyclin which has antiplatelet action. The deficient production of prostacyclin may be linked with coagulation abnormalities in preeclampsia and eclampsia. So, in preeclampsia, there is imbalance between thromboxane A2 and prostacyclin and increase in thromboxane A2/prostacyclin ratio.[1,10] This causes vasoconstriction of small arteries and activation of platelets. Therefore, in preeclampsia and eclampsia, excessive platelet activation is associated with endothelial dysfunction, thrombosis in microcirculation, end organ degenerative necrosis and placental infarction.[1,10]

From the above studies, it has been revealed that decrease platelet count act as a future risk for complications in preeclampsia and eclampsia. Several studies have done abroad to observe the platelet count in these groups but their exact relationship with preeclampsia and eclampsia still debatable. As there is less published data available regarding this topic in our country, the relationship among this parameter in the Bangladeshi preeclamptic and eclamptic is not precisely known. Furthermore, we need a data from which we can compare these parameters in our population.

Materials and Methods

The present cross sectional analytic study was conducted in the Department of Physiology, Dhaka Medical College, Dhaka. For this study, 150 women aged 18 to 40 years were selected as study group B (B_1: 50 normal pregnant women, B_2: 50 diagnosed preeclamptic women and B_3: 50 diagnosed eclamptic women). 50 healthy nonpregnant women with same age range were considered as control group (group-A) for comparison. Before taking blood detailed family and medical history were taken and recorded in a prefixed data schedule. In addition, body mass index (BMI) was calculated and blood pressure was measured. Presence of proteinuria was determined by conventional heat coagulation test. Then interpretation of the heat coagulation test was done according to presence of turbidity in the urine as nil/trace (0), 1+, 2+, 3+ and 4+.[13] For statistical analysis one-way ANOVA test was performed as applicable using SPSS for windows version 22.

Results

The mean systolic and diastolic blood pressure were significantly higher in preeclampsia and, eclampsia compared to healthy non pregnant women. Again the mean urinary protein level was significantly higher in study group compared to healthy non pregnant women **Table 1.**

Table: I General characteristics of the subjects in different groups (n=200)

Parameters	Healthy non pregnant (n=50)	Normal pregnant (n=50)	Preeclampsia (n=50)	Eclampsia (n=50)
Age (years)	28.24±4.63 (20-38)	26.74±3.93 (20-38)	26.86±5.33 (18-37)	25.88±5.99 (18-40)
BMI (kg/m2)	26.17±2.58 (20.2-32.3)	27.54±5.50 (21.5-60.5)	27.72±3.5 (18.3-40.9)	27.97±1.85 (24.1-38.3)
SBP (mmHg)	112.2±7.1 (100-130)	118.0±9.5 (100-140)	159.8±19.2 (140-170)	180.2±19.6 (150-200)
DBP (mmHg)	73.0±6.1 (60-80)	75.0±6.8 (60-100)	110.0±9.9 (90-130)	125.0±15.5 (100-140)
Urinary protein level (gm/L)	Nil	.013+0.043 (0-0.15)	1.34±1.72 (0.15-7.0)	1.82±1.98 (0.15-7.0)

Results are expressed as Mean ±SD; Figures in parentheses indicate range; One-way ANOVA test was performed to compare among four groups; n = Number of subjects; BMI= Body mass index; SBP= Systolic blood pressure; DBP= Diastolic blood pressure.

The mean platelet count was lower in preeclampsia, eclampsia and normal pregnancy compared to healthy non pregnant women and the result was statistically significant (Table 2).

Table: II Platelet count of the subjects in different groups (n=50)

Parameter	Healthy non pregnant(A) (n=50)	Healthy pregnant women (B1) (n=50)	Women with preeclampsia (B2) (n=50)	Women with Eclampsia (B3) (n=50)	Platelet count *p* value
Platelet count (103/µL)	283.2±28.4 (200-330)	249.4±55.0 (22-320)	171.5±28.3 (130-260)	163.4±46.6 (130-322)	<0.001

Results are expressed as Mean ±SD. Figures in parentheses indicate range. One-way ANOVA test was performed to compare among four groups. n = Number of subjects; Group A: Healthy adult non pregnant women (Control group); Group B1: Women with normal pregnancy, Group B2: Women with preeclampsia, Group B3: Women with eclampsia, p < 0.05 indicates level of significance.

Moreover in this study, decreased platelet count (<150x103/µL) were found in different percentages of preeclampsia, eclampsia and normal pregnant women (Table 3).

Table: III Distribution of the subjects by platelet count in study groups (n=50)

Parameter	Normal pregnant women (n=50)	Preeclamptic women (n=50)	Eclamptic women (n=50)
Platelet count <150(x103/µl) > 150(x103/µl)	12(24%) 38(76%)	34(68%) 16(32%)	38(76%) 12(24%)

Results are expressed as frequency and percentage.
n= Number of subjects.

Discussion

Preeclampsia and eclampsia remains one of the important causes of perinatal mortality and maternal death in most developing countries.[8] Its exact pathophysiology is not yet fully understood.[2] Out of all hematological changes that occur in preeclampsia thrombocytopenia is the most common and the degree of thrombocytopenia increases with the severity of disease.[3] Preeclampsia and maternal mortality might be reduced through serial monitoring of platelet count as a part of antenatal check-up. The main aim of this study is to detect level of platelet in preeclampsia, eclampsia and normal pregnancy.

In the present study, the mean platelet count was 283.2±28.4 x103/µL of blood, 249.4±55.0 x103/µL of blood, 171.5±28.3 x103/µL of blood and 163.4±46.6 x103/µL of blood in group A, B1, B2 and B3 respectively. So, the mean platelet count was lower in preeclamptic, eclamptic and normal pregnant women than that of healthy nonpregnant female and the result was statistically significant (p < 0.001).

This finding was in agreement with the study of many researchers of different countries.[6,12,14,15]

Again, out of 50 normal pregnant women 12 was thrombocytopenic, 34 preeclamptic women out of 50 preeclamptic and 38 eclamptic women out of 50 eclamptic women were thrombocytopenic in this study.

Conclusion

From the result of this study, it may be concluded that platelet count is decreased in pregnancy and pregnancy induced hypertension. Therefore, measurement of this parameter may reflect the severity of preeclampsia and helps to provide appropriate treatment to ensure a satisfactory outcome for mother and fetus.

References

1. Onisai M, Vladareane AM, Bumea H et al. study of the hematological picture of platelet function in preeclampsia- report of a series of cases. Med J Clin Med. 2009;4(4):326-37.

2. Coppage KH, Sibai BM. Preeclampsia and eclampsia.; Glob. Libr. Women's med. 2008; ISSN (1756-2228):Retrieved June19, from http://www.glowm.com/section-view/heading/Preeclampsia and Eclampsia

3. Osungbade KO, Ige KO. Public health perspectives of preeclampsia in developing countries: implication for health system strengthening. J pregnancy. 2011;2011:1-6

4. Duley L. Preeclampsia and the hypertensive disorders of pregnancy. Br. Med Bull. 2003.67: 161-176

5. Wiktor H, Kankofer M, Schmerold I et al. Oxidative DNA damage in placentas from normal and pre-eclamptic pregnancies. Virchows Arch. 2004 Jul;445(1):74-78.

6. Chauhan P, Rawat U, Bisht V et al. Comparison of coagulation profile in pre-eclamptic and eclamptic patients with normotensive pregnant patients. J of Evolution of Med and Dent Sci. 2014:3(12):3208-3215.

7. Dave R, Agravat A, Dhruva G et al. Comparative study if coagulation factors in preeclampsia and normal pregnancy. IJSR. 2014;3(4):377-378.

8. Abbas EA, Abdalla R, Omer I et al. Evaluation of Platelets count and indices in Pre-Eclampsia compared to normal pregnancies. IOSR-JDMS 2016;15(7):05-08.

9. Sharpe PC, Trinick T. Mean platelet volume in diabetes mellitus. Q J Med. 1993 Nov;86(11):739-742.

10. Leduc L, Wheeler JM, Kirshon B et al. Coagulation profile in severe preeclampsia. Obstet Gynecol. 1992 Jan;79(1):14-18.

11. Sultana S, Begum A, Khan MA. Disseminated intravascular coagulation (DIC) in obstetric practice. J Dhaka Med Coll. 2011;20(1):68-74.

12. Mohapatra S, Pradhan B.B, Satpathy U.K., Mohanty A., Pattnaik J.R. Platelet estimation: it's prognostic in pregnancy induced hypertension. Indian J Physiol. Pharmacol. 2007;51:160–164.

13. Dissanayake VHW, Morgan L et al. the urine protein heat coagulation test – a useful screening test for proteinuria in pregnancy in developing countries: a method validation study BJOG: Int J Obstet Gynaecol 2004;111:491-4.

14. Devi E. Combination of platelet and uric acid estimation can predict severity of PIH better. Int J Pharm Bio Sci. 2012;3(3):1039-45.

15. Andrews L, Haridas N, Vaishnav S et al. Biochemical and haematological investigations in pregnancy induced hypertension. J Cell Tissue Res. 2012;12(1):300

Review Article

Evolution of Anatomy Curriculum: Bangladesh Perspectives

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Abstract

Curriculum is a precise design of educational experiences and activities offered to a learner under the guidance of an educational institution. Periodic updating or renewal of a curriculum is necessary to improve medical sciences. Anatomy, a branch of biological sciences concerned with the identification and description of the body structures of living organisms. Anatomy is a complex and dynamic field constantly evolving as new discoveries are made. In the recent past, there has been a significant increase in the use of advanced imaging techniques, such as MRI (Magnetic resonance imaging), Elastography and CT (Computed tomography) scans. The course contents, teaching-learning strategy and assessment procedure are also updated. This article analyzes the medical curriculum on anatomy at different times in Bangladesh. It provides a structured, conceptual framework that supports our undergraduate students for intellectual & academic accountability.

Keywords: Anatomy, Medical curriculum in Bangladesh

Received: 08.12.2022, **Accepted:** 15.12.2022.

Ad-din Sakina Women's Medical College Journal. 2023; 4 (1) : 24-26

Introduction

Anatomy has been the bedrock of medical education for hundreds of years. Anatomical knowledge supports examination of patients and provides a platform of knowledge suitable to all medical careers. Under old style medical education, students were expected to learn detail with little understanding of relevance.[1] As medical education is a dynamic process, the curriculum needs multiple review with the continuous changes in the medical field.[2] There are many anatomy curricula restructured to reflect novel teaching philosophies like problem-based learning (PBL), teaching by organ system and integration with clinical experiences.[3] The arguing of curriculum started from the period of Plato (360BC) who stated the goal of education to run the society smoothly.[4] Curriculum development is a specialized task that includes curriculum design, implementation and evaluation. [5] A new curriculum is launched to modernize the learning.

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Medical curriculum in Bangladesh

Bangladesh did not have any formal undergraduate medical curriculum before 1988 except a syllabus published by the Bangladesh Medical and Dental council (BMDC). The current form has inherited from the curriculum of 1988 which was the first official curriculum for the MBBS degree in Bangladesh.[6] 1988 curriculum has been updated in the year of 2002, 2012 and 2021.

Curriculum reform

Before 1988 and in 1988 curriculum, course duration for 1st professional examination was 2 years. In 2002 curriculum, course length has been shrunk to one and half years and this additional 6 months were moved to final professional examination. Furthermore, formative assessments' marks are added to professional examination which is absolutely new concept implemented.[7]

In traditional technique, Anatomy learning was dissection and lecture based. Assessment system was unstructured. Use of tools and teaching materials were inadequate. Evolution is an enduring process and the one who manages to change "survives". Anatomy, too, has transformed in every aspect in course of time.[8]

Course content

Learning objectives and course contents are almost same. In 2002 curriculum, course contents divided into core & additional contents in some areas. No significant changes are made in topics and contents. Integrated teaching was first incorporated in 2002 curriculum but full- scale integrated teaching was not practicable.[9] Topics are mentioned and 30 hours is allocated in 2012 curriculum.[10] However integrated teaching and generic topics on medical humanities are started in 2021 with a new dimension. Time allocation is 36 hours for integrated teaching and 7.5 hours for generic topics on medical humanities.[11]

Teaching- Learning method

Before 1988, teaching was mostly by customary old practice which was teacher centered and consists of lectures and practical session. Teaching-learning method – lecture, dissection, demonstration, practical, tutorial and self-study & self-assessment are not changed in 2002, 2012, 2021 but in case of teaching aid, computer & multimedia is added in 2012 and 2021. The rest are almost same. Virtual anatomy dissection table and various projection systems among the teaching aids are included in 2021 curriculum.

Assessment procedure

Time allocation in 2002 curriculum, lecture & review 120 hours, cell biology & histology-practical & tutorial 60 hours, dissection, demonstration & tutorial 410 hours, (dissection & demonstration - 350hours). Card completion exam hours - 60 hours in 2002 curriculum. Total hour - 650 hours.

In 2012, lecture & review - 115 hours, cell biology & histology - tutorial & practical – 52 hours, dissection, demonstration and tutorial – 343 hours. Card completion Exam hours -20 hours, Total = 530 hours .Integrated teaching for phase I – 30 hours.

In 2021, lecture & review - 115 hours, cell biology & histology - tutorial & practical – 52 hours. Dissection, demonstration and tutorial – 354 hours, card completion exam hours - 6 hours, total = 527 hours. Integrated teaching for phase I – 36 hours.

So it is observed that time allocation for anatomy greatly reduced by 120 hours in 2012 curriculum compared to that of 2002. 3 hours degraded in 2021. Card Examination time is gradually declined from 60 hours in 2002; 20 hours in 2012 to 6 hours in 2021. No specific time period for integrated teaching for phase I in 2002. 30 hours and 36 hours are allotted in 2012 and 2021 curriculum respectively.

Components and mark distribution

1st professional mark distribution of assessment of anatomy is same in 2021 as in 2012 and 2002 (Total marks = 500 • Written = 200 • SOE = 150 • Practical = 150) but question pattern are changed e.g. Written - 200 (formative 20 + MCQ 40 + SAQ 140) in 2002 & 2012, and written - 200 [formative 20 + MCQ (SBA+MTF) 40+SAQ (SEQ+SAQ) 140] in 2021 curriculum.

Discussion

Anatomy curriculum is being sound, comprehensive and helpful for our future clinicians. Anatomy is the backbone of basic sciences and dissection is the building block of it. A great deal has changed since the seventh century when the first dissections were exercised and henceforth out-lawed for the next few centuries. Dissections can now be practiced legally within the ethical parameters and build a reservoir of knowledge regarding human body.[12] The past few decades have observed major changes in the teaching of anatomy to medical students.

Now it is clear that as a basic subject human Anatomy has been served an important role in the medical education that is relevant to health care specialties.[13] There are so many changes found in teaching methodology and assessment processes of anatomy. During one and half years, specific number of hours is allocated to gross anatomy,

histology, and neuroanatomy etc. Traditional methods for teaching anatomy such as didactic lecture and complete dissection of the body are being replaced by prosection, the use of plastic models, living anatomy, body painting, examination of preserved specimens, instructional videos, 3D computer, simulated models.[14] The anatomy education system may vary in institute or country due to resources. But the goal is same that is to prepare better future health professionals.

Conclusion

A medical curriculum should be based on a multi-step procedure. Arrangement of seminar and video conference on common clinical problems in each region will make anatomy teaching more relevant. In the new curriculum, students may be introduced some new information from integrated teaching and generic topics which come earlier to them than past medical students. Besides this, students should be introduced to new technology which enhanced classical dissection part by using ultrasound (US), tridimensional visualization, multiaxial computerized image reconstruction & magnetic resonance imaging (MRI). In current time, knowledge can be transmitted in multi-disciplinary way. It is a great achievement and progressive sign in our medical course.

References

1. Turney BW. Anatomy in a modern medical curriculum. Ann R Coll Surg Engl. 2007 Mar;89(2):104-107.

2. Ahmed YA, Alneel S. Analyzing the Curriculum of the Faculty of Medicine, University of Gezira using Harden's 10 questions framework. J Adv Med Educ Prof. 2017 Apr;5(2):60-66.

3. Drake RL. Anatomy education in a changing medical curriculum. Anat Rec. 1998 Feb;253(1) :28-31.

4. Alam KK, Nargis T, Khan TF et al. Need Assessment for Undergraduate Medical Curriculum of Bangladesh through Exploring the Views of Government Primary Healthcare Doctors. Bangladesh J Anat. 2009;7(2):87-93.

5. Talukder MHK, Hossain MJ, Hanif MA et al. Reviewing and updating of MBBS curriculum 2002: intern doctors views. Bangladesh J Anat. 2011;9(1):35-40.

6. Majumdar MAA. Medical education in Bangladesh: past successes, future challenges. Bangladesh Med J. 2003;32:37-39.

7. Haque M, Yousuf R, Abu Bakar SM, Salam A. Assessment in Undergraduate Medical Education: Bangladesh Perspectives Bangladesh Journal of Medical Science. 2013;12(4):357-363.

8. Singal A. Transforming anatomy education: then and now. Anat Sci Int. 2022 Mar;97(2):230-231.

9. Curriculum for under- graduate Medical education in Bangladesh 2002. Available from: https://www.bmdc.org.bd/docs/CurriculumMBBS_2002.pdf

10. Bachelor of Medicine & Bachelor of Surgery (MBBS) curriculum in Bangladesh-2012. Available from: http://www.mmc.gov.bd/downloadable new_curriculum/.pdf

11. Bachelor of Medicine & Bachelor of Surgery (MBBS) curriculum in Bangladesh-2021. Available from: https://www.bmdc.org.bd/curriculum-2020

12. Yousuf A. Anatomy In The Undergraduate Medical Curriculum; Blending The Old and New. JRMC. 2023;27(1). https://www.journalrmc.com/index-.php/JRMC/article/view/2271.

13. Zilverschoon M, Vincken KL, Bleys RL. The virtual dissecting room: Creating highly detailed anatomy models for educational purposes. J Biomed Inform. 2017 Jan;65:58-75.

14. Ahmed K, Rowland S, Patel V et al. Is the structure of anatomy curriculum adequate for safe medical practice? Surgeon. 2010 Dec;8(6):318 -324.

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