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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНИТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНИТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman** (**Кириллица**), для текста на грузинском языке следует использовать **AcadNusx.** Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - http://www.spinesurgery.ru/files/publish.pdf и http://www.nlm.nih.gov/bsd/uniform_requirements.html
В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректура авторам не высылается, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or compu-ter-printed on a single side of standard typing paper, with the left margin of **3** centimeters width, and **1.5** spacing between the lines, typeface - **Times New Roman** (**Cyrillic**), print size - **12** (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf
In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

Articles that Fail to Meet the Aforementioned Requirements are not Assigned to be Reviewed.

ავტორთა საყურადღებოდ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx.** შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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HAEMATOSPERMIA: CAUSES AND ASSOCIATED CHANGES IN SEMEN ANALYSIS IN NORTH OF IRAQ

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Abstract.

Haematospermia is the medical term used to describe the presence of blood in semen. It can occur due to a variety of reasons and can be a benign or serious condition. The present study aimed to identify the prevalence and characterization of haematospermia in patients visiting hospital clinics. To do so, a total of 44 patients were recruited and characterized regarding their demographic variation, symptoms, severity, associated diseases, and measured prostate-specific-antigen (PSA). Results confirmed that patients were middle-aged (around 40 years) and the duration (days) of haematospermia is around 16 ± 12. Only a few of these patients have shown an association with chronic diseases such as hypertension and diabetes or other vascular diseases. Less than 50% of these patients have shown past-surgical history and few of them were using anticoagulants. 16 ± 12. The majority of patients had painless haematospermia while only (13.6%) had painful haematospermia, irritative urinary symptoms were found in (13.6%) while obstructive urinary symptoms in (4.5%). Ultrasound (US) examination of the abdomen, pelvis, and scrotum was normal in more than 50% of them while others have shown prostatic involvement. Few of these patients experienced pus on laboratory examination. To sum up, haematospermia is represented as an inconvenient disease in our sample leading to interference with daily quality of life, with no clear understanding aetiology of the disease and its progression.

Key words. Prostate, haematospermia, pain, semen, Prostate-specific antigen.

Introduction.

Haematospermia is traditionally defined as the presence of blood in semen. This condition is not uncommon and can be a serious problem for patients and their spouses [1]. Although in most cases it is a painless, benign, and self-limiting symptom, its presence can be frightening and uncomfortable for patients. In the past, urologists considered azoospermia to be a benign condition and recommended conservative treatment [2]. Haematospermia may occur only once, but it may also be occasional or chronic [3]. According to the pathophysiological mechanism of haematospermia, the aetiology of haematospermia can be divided into inflammatory, infectious, calculus, cystic, obstructive, neoplasms, hypertension, trauma, iatrogenic, and of systemic origin (eg, haemophilia). Alternatively, the aetiology of azoospermia can be classified by anatomical origin, ie prostate, bladder, vas deferens, seminal vesicles, or epididymis.

Once true blood poisoning has been confirmed, further evaluation depends on three main factors: the age of the patient, the duration of symptoms, and the presence of symptoms or associated risk factors. Associated symptoms include genital pain or urinary symptoms. Pain during urination may indicate urethritis, cystitis, or prostatitis, while painful bladder distension usually indicates cystitis. Pain during ejaculation may be due to prostatitis or blockage of the ejaculatory ducts. Urinary symptoms may indicate primary or secondary pathology of the bladder or bladder outlet, such as dysfunction or abnormal morphology [6].

As many case reports have demonstrated an association between uncontrolled blood pressure and hypotension, patient evaluation should include blood pressure measurement. The abdomen should be examined for masses and organic structures. The reproductive organs should be carefully examined, including the inguinal, perineal, and urethral muscles [7]. The aim of all investigations in such cases of azoospermia should be to determine the cause or to rule out infection and malignancy. Sperm evaluation requires a detailed history, physical examination, and appropriate testing [8].

Studies Most authors recommending baseline data for studies agree on initial diagnostic testing, but there is no consensus [7]. A simple initial examination should be performed in primary health care. These include blood pressure and urinalysis for signs of infection or no visible haematospermia. If the patient shows signs of infection, the sperm may be sent for microscopy, culture, and susceptibility testing. People over the age of 40 should have a prostate-specific antigen (PSA) test or a rectal exam. If the testes are abnormal, ultrasonography of the scrotum should be requested [9].

However, it is difficult to determine the exact cause and treat persistent and persistent haematospermia. Disorders of the ejaculatory ducts and seminal vesicles are the leading cause of azoospermia and have been assessed using revolutionary imaging modalities including transrectal ultrasound (TRUS), pelvic tomography (CT) or magnetic resonance imaging (MRI). Endoscopy is also used as a minimally invasive diagnostic and therapeutic method [10-13].

Patients Methods.

Forty-four patients with haematospermia were enrolled from January 2020 to January 2021 in a prospective case-series study done in Mosul. The patient's residency where Mosul and other cities in the North of Iraq. A full medical history and physical examination were applied to all patients included in this study, and then laboratory investigations such as urinalysis and blood tests, including PSA for patients above 40 years old and semen analysis were also applied. Ultrasound examinations including Doppler ultrasound of the scrotum and ultrasound of the abdomen were applied to the patients.

Results.

Patients' age ranged between (16-75) years with a duration (of 16 ± 12) days, majority of the patients were from urban areas,

most of them were office workers and 20.5% of them were cigarette smokers (Table 1).

Table 1. *Personal characteristics of haemospermia patients.*

Parameters	Mean ± SD (Median)	Range
Age, (years)	43.2 ± 17.5 (40.0)	16.0 – 75.0
Duration of haemospermia, (days)	16 ± 12 (7.0)	1.0 – 90.0
	No.	%
Residence:		
Urban	28	63.6
Rural	16	36.4
Occupation:		
Official workers	27	61%
Non-official workers	15	34%
Students	2	5%
Cigarette smoking	9	21%
Alcohol drink	3	7%
Total	44	100

Past medical history revealed hypertension only in (18.2%) while in 9.1% it was associated with Ischemic Heart Disease (IHD) and Diabetes Mellitus (Type II DM), the overall use of antiplatelet and anticoagulants was found in around (18%) of patients (Table 2).

Table 2. *Past medical, surgical and drug history of haemospermia patients.*

Items	No.	%
Past medical history	14	32%
Hypertension	8	18
IHD	4	9
Type II DM	1	2.3
Deep vein thrombosis	1	2.3
Past surgical history	14	32
Varicocelectomy	3	7
Hemorrhoidectomy	2	4.5
Inguinal herniorrhaphy	2	4.5
Appendectomy	1	2.3
Bilateral Orchidopexy	1	2.3
Gluteal abscess	1	2.3
Internal urethrotomy for stricture	1	2.3
Right orchidopexy	1	2.3
TURP-	1	2.3
Lap cholecystectomy	1	2.3
Past drug intake	8	18%
Aspirin	6	13.6
warfarin	1	2.3
Clopidogrel	1	2.3
Total	44	100.0

The majority of patients had painless haematospermia (86.4%) while only (13.6%) had painful haematospermia, irritative urinary symptoms were found in (13.6%) while obstructive urinary symptoms in (4.5%) (Figure 1 and Table 3).

Laboratory investigations revealed the presence of pus cells in the urinalysis of (31.8%) of patients and (36.4%) of patients in semen analysis. Prostate Specific Antigen (PSA) was done for patients above (40) years and it was normal in the evaluated patients (Table 4).

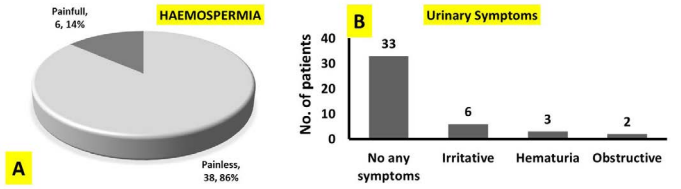

Figure 1. *Clinical presentation of patients with haematospermia.*

Table 3. *Clinical presentation of haemospermia patients.*

Clinical presentation	No.	%
Urinary symptoms		
No, any symptoms	33	75
Irritative	6	13.6
Obstructive	2	4.5
Hematuria	3	6.8
Other symptoms		
Testicular pain	4	9.1
Loin pain	3	6.8
Infertility	2	4.5
Impotence	1	2.3
Post ejaculation pain	1	2.3
Scrotal examination		
Normal	41	93.2
Left varicose veins	2	4.5
Small left testes with epididymoid cyst	1	2.3
Total	44	100.0

Table 4. *General urine examination, seminal fluid analysis and PSA of haemospermia patients.*

Lab investigations	No.	%
GUE		
Normal	30	68.2
Abnormal: pus cells and RBC	14	31.8
Seminal fluid analysis		
Normal	16	36.4
Abnormal:	28	63.6
Pus cells	16	36.4
Sperm count:		
Oligoasthenospermia	18	40.9
Asthenospermia	6	13.6
Azoospermia	4	9.1
Mean PSA (ng/ml), [n =20]	1.14 ± 0.78	---
Total	44	100.0

Changes in semen analysis revealed Oligoasthenospermia in (40.9%) of patients, Figure (2).

Ultrasound (US) examination of the abdomen, pelvis and scrotum was normal in (56.8%) of patients, with prostatic enlargement in (20.5%), seminal vesiculitis in (4.5%) and seminal vesicle cyst in (2.3%) as shown in Table (5).

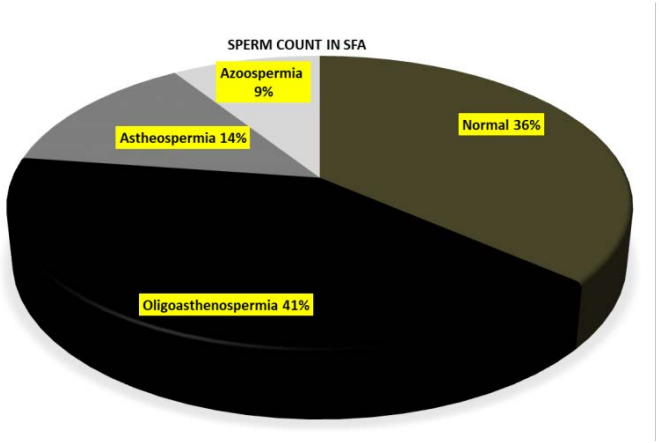

Figure 2. *Sperm count in the seminal fluid analysis of haemospermia patients [n = 44].*

Table 5. *Ultra-sonography finding of haemospermia patients.*

Ultra-sonography finding	No.	%
Normal	25	56.82
Prostate enlargement [21 – 60]	9	20.5
Renal cysts (different sizes)	6	13.6
Left venous velocity	2	4.5
Seminal vesicle inflamed	2	4.5
Left mild hydrocele, Lt. epididymal Cyst	1	2.3
Left seminal vesicle cyst	1	2.3
Left varicocele	1	2.3
Small size testes left epididymal Cyst	1	2.3
Splenomegaly	1	2.3
Total	44	100.0

Discussion.

The present local study highlighted the characterization of haematospermia in a group of patients who participated in the study. Samples collected were in their middle age of around 40 years old. Most conducted studies in this area have reported that haematospermia is common in the age group around 40 years [14-17]. Most of the patients were living in the urban area (61%) and most often they were official workers (61%) and 34% were workers in the private sector. A few of them were smokers (21%) or alcoholics (7%). The duration of haematospermia was presently short (16 ± 12, days), this could be explained in the context of the coexistence of haematospermia with the presence of infection which when resolved by treatment the haematospermia subsequently disappeared [17]. Many researchers have reported longer duration with recurrent haematospermia (1-24 months) [18]. Previously conducted studies have shown various duration of haematospermia [19]. In an alternative study, the duration of haematospermia was 3.5 weeks [20].

Past-medical and past-surgical history of patients has revealed that 32% of patients with past medical history and 32% with past surgical history, moreover, some of these patients were using antiplatelet drugs such as aspirin, warfarin, and clopidogrel. Most of this past medical or surgical history has a direct impact on inducing haematospermia. In two case studies involving middle-aged hypertensive patients, they do report bloody semen [18,21], this could be explained in terms of microvasculature damage associated with hypertension. An alternative case study on diabetic patients has reported that a 52-year-old guy who had been experiencing haematospermia for six weeks stated that his sperm was brown in appearance, taking into consideration that the patient's underlying disease is the malignancy of the genitourinary tract [22]. Moreover, some surgery has led to haematospermia, especially those surgeries that take place in the genitourinary tract [23].

Upon presentation, most patients (33 patients) reported no symptoms and no pain, and a few (11 patients) presented with irritative, hematuria, and obstructive symptoms. Similarly, most patients are represented as painless. Few of the participants experienced pain which is either reported to be testicular, loin pain, infertility, impotence, and post-ejaculation pain. Moreover, some patients have reported having varicose veins and epididymoid cysts. Participants also reported having associated symptoms including prostate enlargements, renal cysts, varicocele, small-size testis, epididymal cysts, and splenomegaly. Dissimilar associated symptoms were also reported in a prospective study conducted in Sri Lanka by Sivanandan et al., who reported that patients with haematospermia were represented with associated symptoms including groin pain, dysuria, hemopyospermia; taking into consideration that these patients were jointly using antiplatelet medication [24]. An alternative study conducted in China by Tian, represented associated symptoms including painful ejaculation and clotted blood with semen [25]. Moreover, in 2016, Furuya et al, in Japan reported that haematospermia were conjoined with prostatitis, pelvic pain, and genitourinary lesion [26]. Nonetheless, Zargooshi et al. demonstrated an association of haematospermia with urinary calculi, flank pain, testicular pain, ejaculatory pain, erectile dysfunction, infertility, epididymal-orchitis, and varicocle [27]. Hematuria, testicular and penile pain [28]. Bamberger et al. reported an association of haematospermia with prostatism, dysuria, and penile lesion [19].

In the line with our study blood PSA was increased in haematospermia patients [24,27,29,30]. However, our patients were prostatitis or prostate cancers, whereas the patients enrolled in the present study were free from these diseases apart from varicose, cysts, and Seminal vesicle inflamed, hydrocele. Urine analysis in the present study has confirmed that some patients experienced the presence of pus cells and modulation of sperm count and prostate-specific antigen levels. In the line with our study, many research have confirmed these laboratory findings and confirmed that patients with haematospermia have also put in their urine [21-25].

Conclusion.

Haematospermia is a generally uncommon condition, represented as blood in urine and could be as long as a few days or weeks. Different association symptoms include pain, dysuria, pus, and clot with the haematospermia. The aetiology could

be related to the presence of diseases, such as hypertension, infection, and diabetes.

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