MedEdu Tabuk

Weekly Newsletter

Faculty of Medicine, University of Tabuk

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Message from Dr. Marai M. Alamri, Dean of Medicine

Dear Students of the

Faculty of Medicine,
Faculty of Pharmacy and
Faculty of Applied Medical Science

Salam

It is my pleasure to inform you about the website of our Faculty newsletter, **MedEdu Tabuk**. The URL of our newsletter is

https://www.ut.edu.sa/web/mededu-tabuk/home

I believe that it will open up new opportunities for all of us. Having a website will enable us to archive all the articles and other submissions. Thus, your original articles and images can be used as a reference and added to your CV. Take an example of the **Brief Communication** written by Dr. Mohammed Alhejaily, It can be referenced as,

> Alhejaily, MA. & Raza, MT. (2019, Feb 7). High Number of Ear, Nose and Throat Patient Referrals To Specialized Clinics: Do GPs Need Regular ENT Training? *MedEdu Tabuk (Vol 3 Issue 16).* Retrieved from https://www.ut.edu.sa/en/web/mededu-tabuk/home

Click to visit our webpage

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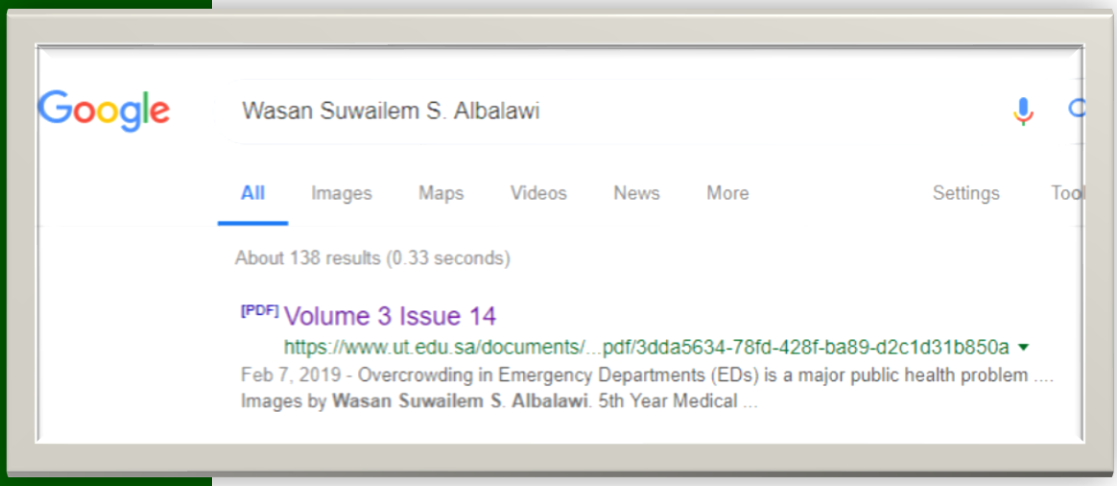
Dr. Alhejaily is a recent graduate from the Faculty of Medicine. He will add this to his CV that will be a plus point for his applications.

Another example is the image by Wasan Suwailem S. Albalawi, a 5th year student from Faculty of Medicine. She can add this in her CV as a reference like this,

> Albalawi WS. (2019, Feb 7). Image Title, Anatomy of a Stethoscope. *MedEdu Tabuk (Vol 3 Issue 16).* Retrieved from https://www.ut.edu.sa/en/web/mededu-tabuk/home

It will be a plus point for her resume and **joining the Dean's list** (for the students of the Faculty of Medicine).

Inshallah we will soon apply for indexing which will give more credibility to your published work. If you need any help or suggestions, please feel free to contact **Dr. Tanveer Raza**, Editor-in-Chief of MedEdu Tabuk. His contact is Tel: 0537251324, and email is traza@ut.edu.sa



Dr. Marai M. Alamri
Dean
Faculty of Medicine
University of Tabuk

Message from Dr. Laila Ahmed Albishi, Vice Dean, Faculty of Medicine

بسم الله الحمن الرحيم

الحمدلله رب العالمين وصلاةً وسلاماً على النبي الهادي الأمين....

أهنئكم طلاب وطالبات كلية الطب بجامعة تبوك على عل نجاحكم وتميزكم بين جامعات مملكتنا الحبيبة في إختبار الرخصة السعودية لمزاولة مهنة الطب البشري وحصولكم على نسبة 93%.

هذا النجاح حقيقة يشعرنا بالفخر ويعزز ثقتنا في إمكانية وقدرات أبناءنا وبناتنا العلمية والتي ستمكنهم من خدمة الوطن والعمل بجد في الحياة الطبية المهنية ومازال أمامكم الكثير من النجاحات التي تنتظركم ونأمل أن تكونوا دائماً من المتميزين والمتقنين في كل مجالٍ طبي تعملوا فيه ليس فقط على مستوي المنطقة بل محليا وعالميا طالما حددتم الهدف ورسمتم طريقكم فلا يبقى إلا العمل بجد ومثابرة وإستمرارية.

ولاننسى دائماً من كان له الفضل في هذا الإنجاز العلمي إبتداءً من الأسرة ودعم الوالدين ثم من أساتذكم من أعضاء هيئة التدريس فهم منبع العلم وأساسه ومصدر ثري لإبداعاتكم في المستقبل وكذلك القيادة الفاعلة المتمثلة في عمادة الكلية بقيادة الدكتور مرعي العمري حفظه الله وجميع الوكالات بالكلية والأقسام العلمية والتي أسهمت في وضع أسس النجاح وسعت إليها وهي مستمرة على الدوام فلهم كل الشكر والتقدير.

وختاماً أطباء وطبيبات كلية الطب بجامعة تبوك لكم مني خالص التمنيات بالتوفيق والسداد وإلى الإمام.

والسلام عليكم ورحمة الله وبركاته

دكتورة ليلى بنت أحمد البيشي

Message from the Editor-in-Chief- Dr. Tanveer Raza

Practicing medicine and teaching students involves leadership and yet unlike other professionals, doctors are rarely trained on leadership skills. This week's Academic Activity held on Wednesday, February 27th, 2019 at the Faculty of Medicine focused on Leadership skills for health educators. We were glad to have a guest speaker who is an expert on educational leadership. Our speaker was Professor Dr. Khalifa Albalawi, a PhD in Educational Leadership, from the Faculty of Education, University of Tabuk. Dr. Khalifa's talk challenged our normal conception of leadership and generated great interest among my colleagues.

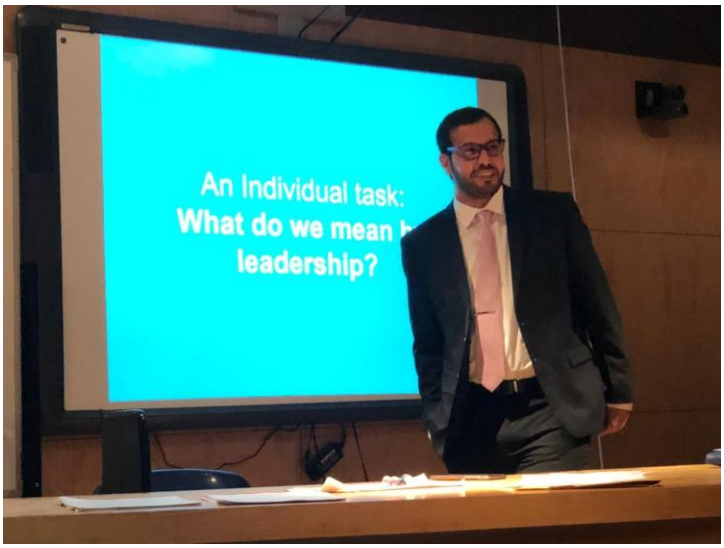


Figure: Dr. Khalifa Albalawi giving his talk on Educational Leadership. [Photo Credit: Dr. Fahad Edrees, Faculty of Medicine]

For submissions
Editorial Office, Faculty of Medicine, University of Tabuk. Email: mededutabuk@ut.edu.sa

Also, for Faculty of Applied Medical Science, University of Tabuk (eosman@ut.edu.sa)

And Faculty of Pharmacy, University of Tabuk (pchettiar@ut.edu.sa)

AIDS: Fight the disease … Do not fight the patient

Pharmacist. Azizah Abdullah M. Al-Harbi
Master of Health Services Management and Hospitals
Super Visor of Student Activity
Faculty of Medicine

On Tuesday, 14/06/1440, the students of Faculty of Medicine-Tabuk University (Female section) organized an interactive awareness activity titled: **AIDS: Fight the disease … Do not fight the patient**

The activity was organized by the supervisor of the students' activity unit Pharmacist Azizah al-Harbi, and under the supervision of Dr. Shereen Fawzy Hafez; Professor of Medical Microbiology and Immunology and was held in the lobby of the college on the second floor.

The activity aimed to raise the awareness of the female students regarding the Acquired Immunodeficiency Syndrome (AIDS); the nature of the causative virus, the nature of the disease, and the different modes of transmission and clarify the misconceptions pertaining this issue. It aimed also to encourage our students to support the patients and encourage them to seek medical care thus preventing the advancement of the disease and preventing the spread of infection in the community. One of the main aims of the activity was orient the students by the post exposure prophylaxis (PEP) management if one is exposed to the virus during their work in different healthcare settings.

There was a satisfactory attendance from both the students and faculty members.

WHEN DOES IMPLANTATION BLEEDING OCCUR?

Maryam Alenzi
6th-year Medical Student
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[This article has been reviewed by Dr. Yazeed Albalwi, Faculty of Medicine, University of Tabuk]

Editor's Note

CNN reported (TOP TEN QUESTIONS) the top 10 health-related topics Internet surfers in the United States turned to Dr. Google for answers. Students from the Faculty of Medicine, University of Tabuk are taking up this challenge and giving the answers

Vaginal bleeding is common in the first trimester of pregnancy, occurring in 20% to 40% of pregnant women. It mainly bright and in form of spots. The common causes of bleeding in early pregnancy are; Ectopic pregnancy, Miscarriage or Implantation of the pregnancy.

Furthermore, spotting vaginal bleeding is relatively common in early normal pregnancy and often occurs within 4 days just before an expected menses. 9% of pregnant women experienced at least one day of vaginal bleeding during the first eight weeks of pregnancy. Bleeding tended to occur around the time they expected their period to occur and was typically light (requiring only one or two pads or tampons in 24 hours).

This Physiologic or implantation bleeding —It is characterized by a small amount of spotting or bleeding and is presumed to be related to implantation of the fertilized egg in the decidua (ie, lining of the uterus).

The process of implantation starts with fertilization. Once a sperm has fertilized an egg, it is called an embryo, the embryo travels through the Fallopian tube towards the uterus. During this time, the embryo multiplies, becoming a blastocyst, which is a number of cells all bunched together.

Once the blastocyst reaches the uterus, it will look for a good spot to attach itself to the wall of the uterus. This attachment to the uterus is called implantation that sometimes causes little blood vessels to burst. When the embryo implants in the lining of the uterus, it can disrupt tiny blood vessels in the spot it burrows into. This won't cause any problems (the endometrium recovers!) but some women will experience light bleeding, Once implantation is complete, the embryo will remain in the same spot throughout the 9-month journey to becoming a newborn. This is around a week after ovulation and about 4 days before a woman has her regular period.

Some women may confuse the bleeding with spotting from menstruation, as the two can appear similar. Menstruation occurs around 14 days after ovulation (when an egg is released & conception is possible), which is another reason why the two are often confused with one another, so the diagnosis of implantation bleeding is by exclusion and no intervention is indicated.

الموظف المثالي لشهر جمادي الأول 1440

الأستاذ/ منيف بن رحيل الفقير

كلية الطب

GENETIC DIAGNOSTICS AND ITS IMPORTANCE IN PEDIATRIC CARDIOMYOPATHY

Muhammad Tariq PhD
Assistant Professor,
Prince Fahd Bin Sultan Research chair
Department of Medical Laboratory Technology,
Faculty of Applied Medical Sciences
University of Tabuk, Tabuk, Kingdom of Saudi

Pediatric cardiomyopathies are clinically heterogeneous heart muscle disorders that are responsible for significant morbidity and mortality. Phenotypes include hypertrophic cardiomyopathy, dilated cardiomyopathy, restrictive cardiomyopathy, left ventricular noncompaction and arrhythmogenic right ventricular cardiomyopathy. There is substantial evidence for a genetic contribution to pediatric cardiomyopathy. Cardiomyopathy is a clinically heterogeneous disease with a strong genetic component which affects heart muscle. In the pediatric population, 40% of children progress to death

or transplantation within 5 years of diagnosis. The overall incidence of cardiomyopathy in children < 18 years of age in the United States is 1.13 cases per 100000 annually. Cardiomyopathy in the pediatric population is diverse and may be caused by a number of different factors, including both genetic and non-genetic etiologies, posing an intense diagnostic challenge to clinicians. As a result, the majority of cases are still considered idiopathic. More than 100 genes have been identified causing cardiomyopathy related phenotypes and these genes belong to diverse molecular pathways, implicating the involvement of contractile proteins, intracellular calcium handling, and myocardial energetics as etiologies. Comprehensive genetic diagnosis has been problematic because of the large number of genes, the private nature of mutations, and difficulties in interpreting novel rare variants.

Figure: Group working on genetic disorders at Faculty of applied medical sciences.

This review will focus on current knowledge on the genetic etiologies of pediatric cardiomyopathy and their diagnostic relevance in clinical settings. Identification of the underlying causes of cardiomyopathy may lead to improved outcomes with disease-specific treatments. A research-based pediatric cardiomyopathy registry (PCMR) identified familial, syndromic, neuromuscular or metabolic causes in 30% of children. In the pediatric population, sarcomeric mutations, genetic syndromes, and other unique causes such as inborn errors of metabolism, mitochondrial disorders, myopathies and neuromuscular disorders all contribute. However, the PCMR longitudinal outcome data on more than 3500 children with cardiomyopathy demonstrated that 60%-70% of these children are still classified as "idiopathic". A recent study reported that classifying causes of cardiomyopathy can be increased to 70% with incorporation of evaluation by a geneticist and genetic testing. Because of the inclusion of syndromic, metabolic, and neuromuscular etiologies, genetic causes of pediatric cardiomyopathy are more heterogeneous than adult-onset cardiomyopathy but also encompass the majority of genetic causes that result in isolated cardiomyopathy in adults (*e.g.*, sarcomeric or cytoskeletal gene mutations). In the pediatric population, the same genetic causes that result in isolated (also termed familial) cardiomyopathy in adults are prevalent, including causes of hypertrophic cardiomyopathy (HCM; > 35% yield with sarcomeric gene panel testing) or dilated cardiomyopathy (DCM; > 20% yield with current large DCM gene panels used for testing in adults). The genetic screening of these patients for known

cardiomyopathy genes helps diagnostic screening of family members, family-based risk assessment, and disease-management. Historically, this immense genetic and allelic heterogeneity has made molecular analyses difficult, expensive, and time-consuming due to low throughput of traditional sequencing technologies. However, recent advances in sequencing technologies provide rapid, accurate, and cost-effective DNA sequencing. The majority of the clinical diagnostic laboratories are now adopting next generation technologies for their routine gene testing in cardiomyopathy and focusing on coding regions. It is estimated that about 85% of disease-causing mutations lie within the protein-coding regions of the human genome. Recent developments in sequencing technologies are greatly impacting the pace of gene discovery and clinical diagnosis. Understanding the genetic basis for pediatric cardiomyopathy and establishing genotype-phenotype correlations may help delineate the molecular and cellular events necessary to identify potential novel therapeutic targets for heart muscle dysfunction in children.

ACADEMIC AFFAIRS ARRANGEMENT FOR FACULTY OF MEDICINE

Prof Magdy M. ElShamy
Faculty of Medicine

This Week:

For Female Section:

- **Third Internship and Medical Specialties Forum:** for 5th and 6th year's students**,** on Sunday, 24/2/2019.
- **Family Medicine Module:** 6th year, Starts on Monday, 25/2/2019.
- **Ophthalmology Module:** 5th Year, Starts on Monday, 25/2/2019.
- **Patient Safety Module:** 5th Year, Starts on Thursday, 7/3/2019.
- **ENT (Otorhinolaryngology) Module:** 5th Year, Starts on Sunday, 10/3/2019.
- **Abnormal Human Morphology II (AHM II) Module:** 2nd Year, Second Mid-Module Exam on Sunday 24/2/2019.
- **Islamic study (4) Module:** 3rd year, Mid Module Exam, on Monday, 25/2/2019.
- **Islamic study (1) Module:** 2nd year, Mid Module Exam, on Monday, 25/2/2019.
- **Islamic study (2) Module:** 2nd year Mid Module Exam, on Tuesday, 26/2/2019.

- **Islamic study (3) Module:** 3rd year Mid Module Exam, on Tuesday, 26/2/2019.

For Male Section:

- **Third Internship and Medical Specialties Forum:** for 5th and 6th year's students**,** on Sunday, 24/2/2019.
- **Family Medicine Module:** 6th year, Starts on Monday, 25/2/2019.
- **Psychiatry Module:** 5th Year, Starts on Monday, 25/2/2019.
- **Abnormal Human Morphology II (AHM II) Module:** 2nd Year, Second Mid-Module Exam on Sunday 24/2/2019.
- **Islamic study (4) Module:** 3rd year, Mid Module Exam, on Monday, 25/2/2019.
- **Islamic study (1) Module:** 2nd year, Mid Module Exam, on Monday, 25/2/2019.
- **Islamic study (2) Module:** 2nd year Mid Module Exam, on Tuesday, 26/2/2019.
- **Islamic study (3) Module:** 3rd year Mid Module Exam, on Tuesday, 26/2/2019.
- **Computer skills & Applications (CSC 001):** Preparatory year, First Periodic Exam, on Tuesday, 26/2/20 19.

What do you think?

A student of ours, Maryam Alenzi of the Faculty of Medicine, has suggested some logos for the newsletter. What do you think? Please send us your comments at mededutabuk@ut.edu.sa