

Usefulness of bleeding Profile in Adenotonsillectomy

Ali abd-almer jwad, College of medicine al-qadisiyah university

الخلاصة:

المقدمة: تشكل التهابات اللوزتين والغدانيات نسبة كبيرة من أمراض الطفولة ونفقات الرعاية الصحية للأطفال. يعد التقييم قبل الجراحة في المرضى الذين يخضعون لاستئصال اللوزتين والغدانيات أمر بالغ الأهمية ويمكن أن تكشف عن المشاكل التي يمكن أن تعرقل أي عملية جراحية للمريض. ومن الأهمية بمكان للكشف عن وجود أي شذوذ تخثر. يعد التقييم الروتيني لمعلمات تجلط الدم قبل الجراحة في المرضى الذين يخضعون لعملية استئصال اللوزتين والغدانيات مثيرة للجدل.

الهدف من الدراسة: تفويح الحاجة للحصول على معلومات تخثر قبل استئصال اللوزتين والغدانيات **الطريقة:** هذه الدراسة المستقبليه، وتألقت من 321 طفل يشكو من التهاب اللوزتين والغدانيات. العمر، والجنس، والتاريخ، والفحص البدني، خضاب الدم (الهيموغلوبين٪) وفحص تخثر الدم في شكل وقت البروثرومبين، وقت تجلط الدم الجزئي قد اجري لكل منهم. المرضى الذين يعانون من عوامل الخطر لنزيف، فحص تخثر الدم غير طبيعي ومزيد من العمل يكشف شذوذ تخثر استبعدوا من الدراسة.

النتائج: اثنان من المرضى من المجموعه الاولى حصل لهم النزف الثانوي، والذي يرجع إلى العدوى وعلاجها متحفظ. اثنان من المجموعه الثانيه نزيف الأساسي تم اعادتهم الى صالة العمليات واحد منهم من بقايا غدانية، واحدة من انزلاق عقدة.

المناقشة: مشاكل النزيف في مرضى العمليات جراحية ليست غير شائعة ويمكن أن تحدث لمجموعة متنوعة من الأسباب، والتاريخ الطبي الدقيق والفحص يمكن ان يقدم مساهمات هامة في التوصل إلى التشخيص في حالة الشك بوجود مشكلة في تخثر الدم. ان فحوصات تجلط الدم قبل الجراحة يتم الحصول عليها في كل المرضى الذين خضعوا الى عملية استئصال اللوزتين والغدانيات بشكل روتيني في دراستنا نجد ان فحص تخثر الدم قبل كل عملية أمر مشكوك فيه.

الخلاصة: ان فحص تخثر الدم قبل عملية استئصال اللوزتين والغدانيات لايجب ان يكون روتينيا لكل المرضى مالم يوجد عامل خطوره كالتاريخ المرضي او العائلي او الدوائي أو الفحص السريري.

Abstract:

Introduction: Infectious and inflammatory diseases involving the pharynx, tonsils, and adenoids account for a significant proportion of childhood illnesses and pediatric health care expenditures. Preoperative assessment in patients undergoing adenotonsillectomy is crucial and may reveal problems that could complicate either surgery or the patient's postoperative course. It is crucial to detect the existence of any coagulation abnormalities. routine evaluation of coagulation parameters before surgery in patients undergoing adenotonsillectomy is controversial.

Aim of study: assesses the need for coagulation profile prior to adenotonsillectomy

Method: This study is prospective, consisted of 321 children complaining of adenotonsillar problem. Age, sex, history, physical examination, hemoglobin (Hb %) and bleeding profile in form of prothrombin time, partial thromboplastin time, international normalized ratio was done for all patients. Patients with risk factor for bleeding, abnormal bleeding profile and further work reveals clotting abnormality were excluded from study.

Results: Two patients of normal investigation developed secondary hemorrhage, which is due to infection and treated conservatively. Two of prolonged bleeding profile developed primary bleeding readmitted to theater one of them from adenoid remnant, and one from slip ligature.

Discussion: Bleeding problems in surgical patients are not uncommon and may occur for a variety of reasons if a bleeding disorder is suspected, a careful clinical history and examination make important contributions in reaching a diagnosis. in our

study we find no significant intraoperative or postoperative bleeding occurs due to prolong bleeding profile so relevance of bleeding profile before adenotonsillectomy is questionable.

Conclusion: The routine preoperative bleeding profile is not recommended in every patient undergo adenotonsillectomy operation unless past medical, family history or physical examination suggest bleeding disorders.

Introduction:

Infectious and inflammatory diseases involving the pharynx, tonsils, and adenoids account for a significant proportion of childhood illnesses and pediatric health care expenditures. They often result in two of the most common surgical procedures of childhood, tonsillectomy and adenoidectomy¹. Preoperative assessment in patients undergoing adenotonsillectomy is crucial and may reveal problems that could complicate either surgery or the patient's postoperative course. It is crucial to detect the existence of any coagulation abnormalities. A family history of coagulation disorders or easy bruising may be a warning sign of an underlying bleeding disorder that warrants further hematological evaluation. Routine evaluation of coagulation parameters before surgery in patients undergoing adenotonsillectomy is controversial¹.

The prothrombin time measures the integrity of the extrinsic and common pathways of coagulation (factors VII, X, and V; prothrombin; and fibrinogen) the

partial thromboplastin time measures the integrity of the intrinsic and common pathways of coagulation (high-molecular-weight kininogen; prekallikrein; factors XII, XI, IX, VIII, X, and V; prothrombin; and fibrinogen). The sensitivity of the bleeding profile who had risk factor for prothrombin time and partial thromboplastin time in detecting

coagulation factor deficiencies may vary with the reagents used to perform these tests, and each laboratory must determine its own reference standards. Routine screening of all preoperative patients with a platelet count, bleeding time, prothrombin time, and partial thromboplastin time not only is uninformative but also may be counterproductive if follow-up testing causes unnecessary expense and delays in surgery²

Aim of study: assesses the need for coagulation profile prior to adenotonsillectomy.

Method:

This study is prospective, consisted of 321 children complaining of adenotonsillar problem. They had been admitted to the E.N.T. department of Al-Diwaniyah Teaching Hospital for elective tonsillectomy and or adenoidectomy between January 2013 and December 2015. All operations were done by cold steel dissection method by same surgeon

patients divided into two groups, group A with normal bleeding profile and group B with prolonged bleeding profile.

Age, sex, history, physical examination, hemoglobin (Hb %) and international normalized ratio was done for all patients. Patients with prolonged bleeding profile and further work revealed

clotting abnormality were excluded from with mean age 8 years most patients was study.

Results:

Of 321 patients 214 were females and 107 bleeding profile was normal.16 patients were male with female to male ratio 3:1as undergo adenoidectomy only (4.9%) of all in figure one .age ranged from 3-16 years patients.

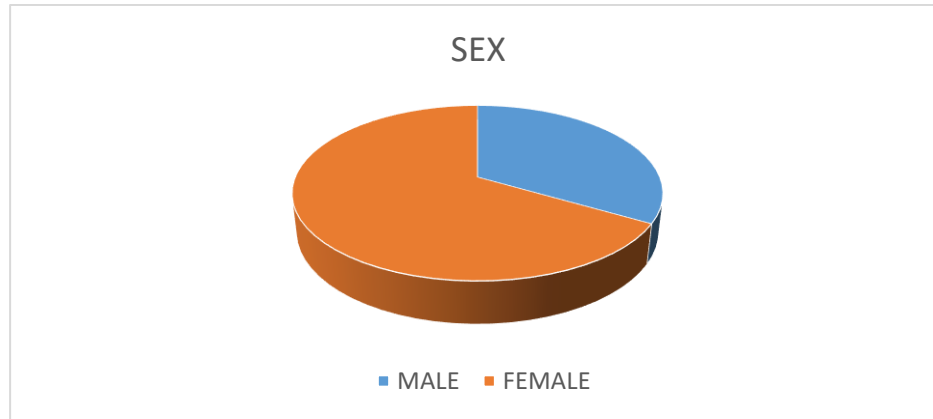


Figure 1 male female ratio

Table 1 age distribution in adenotonsillectomy

Age years	NO	%
3 – 6	170	53%
7 – 10	89	27.7%
11 – 16	62	19.3%

Table 2 bleeding profile results

patients	PT	PTT	INR
NORMAL	303(94.4%)	306(95.4%)	314(97.9%)
PROLONG	18(5.6%)	15(4.6%)	7(2.1%)

Two patients of normal investigation developed secondary hemorrhage, which was due to infection and treated conservatively. Two of prolonged bleeding profile patients developed primary bleeding readmitted to theater one of them from adenoid remnant, and one from slipped ligature.

Discussion:

Bleeding problems in surgical patients are not uncommon and may occur for a variety of reasons if a bleeding disorder is suspected, a careful clinical history and examination make important

contributions in reaching a diagnosis³. Coagulation studies (prothrombin time [PT]/partial thromboplastin time [PTT])/international normalized ratio and platelet quantification are routinely obtained in patients with cardiovascular risk factors because significant bleeding can lead to major perioperative cardiovascular complications⁴, although, we noticed that preoperative coagulation profile obtained in every patients undergo adenotonsillectomy.in our study we found no significant intraoperative or postoperative bleeding occurred due to

prolong bleeding profile so relevance of bleeding profile before adenotonsillectomy is questionable.

Toker asaf et al⁵ found that pre-operative coagulation screening tests provide low sensitivity and low bleeding predictive value which agree with our results and the study of Eberl W etal⁶ which demonstrated the lacking effect of laboratory tests to predict postoperative bleeding complications.

Galila Zaher⁷ in his study say that to predict the outcome of hemorrhage, a detailed preoperative history is still the most sensitive tool.

Smith and colleagues⁸, Kang et al⁹, Burk et al¹⁰ and Handler et al¹¹ recommend routine use of bleeding profile prior to operation because the dangerous outcome of post tonsillectomy bleeding even the low incidence.

Medical history and examination is more valuable in prediction of bleeding problems as stated by Licameli GR¹². The 2008 British guidelines for the assessment of the risk of hemorrhage before surgery or invasive procedures state that routine coagulation testing to predict the risk of postoperative hemorrhage in unselected patients before surgery or other invasive procedures is not recommended¹³

Conclusion:

The routine preoperative bleeding profile is not recommended in every patient undergoes adenotonsillectomy operation unless past surgical medical, family, drug history or physical examination suggest bleeding disorders. However. Further studies are needed to develop an approach for such problems.

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