
**Blunt Abdominal Trauma In Adults,
Conservative Treatment Versus
Surgical Intervention.**

*An Essay Submitted For Partial Fulfillment Of
Master Degree In General Surgery
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LIST OF ABBREVIATIONS

ATLS	Advanced Trauma Life Support
ABG	Arterial blood gases
AAST	American Association for the Surgery of Trauma
AAI	Ankle-ankle index
ABI	Ankle-brachial index
ACTH	Adrenocorticotrophic hormone
ADH	Antidiuretic hormone
APTT	Activated partial thromboplastin time
AST	Aspartate aminotransferase
ALT	Alanine aminotransferase
AIS	Abbreviated Injury Scale
BAT	Blunt abdominal trauma
CVP	Central venous pressure
CBD	Common bile duct
DPL	Direct peritoneal lavage
ECG	Electrocardiogram
ERCP	Endoscopic Retrograde Cholangiography
FAST	Focused Abdominal Sonogram of Trauma
IMA	Inferior mesenteric artery
IMV	Inferior mesenteric vein
IVU	Intravenous urography
IAP	Intra-abdominal pressure
LDH	Lactate dehydrogenase
MRI	Magnetic resonance imaging
MRP	Magnetic resonance pancreatography
MODS	Multiple organ dysfunction syndrome
OPSI	Overwhelming postsplenectomy infection
PT	Prothrombin time
RBC	Red blood cell
RTS	Revised Trauma Score
SMA	Superior mesenteric artery
SMV	Superior mesenteric vein
TNCC	Trauma Nursing Core Course
UPJ	Uretropelvic junction
wbc	White blood cell

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ARABIC SUMMARY

الملخص العربي

تعد اصابات البطن الغير نافذة من أوسع اسباب الإصابات انتشاراً والتي قد تؤدي الي انواع مختلفة من اصابات الأعضاء الداخلية و قد تتراوح خطورة الإصابة من خفيفة إلى مميتة. كما وأن تشخيص حالات الإصابة داخل البطن تعد من التحديات التي تواجه الجراح في حياته المهنية.

كافة الأعراض يمكنها أن تظهر أثناء الكشف على المريض المصاب وذلك في أثناء اجراء فحص البطن. وهنا تكمن الصعوبة في حالات اصابات البطن الغير مباشرة المصاحبة باصابات أخرى مثل إصابات الرأس.

هذا وقد تم التوصل إلى وسائل عديدة لتشخيص إصابة الأعضاء الداخلية في حالات اصابات البطن الغير نافذة مثل الأشعة المقطعية والأشعة التليفزيونية والغسيل البريتوني التشخيصي. ويعتمد اختيار الوسيلة المناسبة للتشخيص على درجة ثبات الوظائف الحيوية للمصاب. مع الوضع بالإعتبار ضرورة اجراء الإسعافات الأولية للمريض قبل الشروع في اداء الفحوصات التشخيصية.

ويعد الكبد والطحال اكثر الأعضاء اصابة نتيجة لاصابات البطن الغير نافذة وحتى أعوام قليلة كان علاج هذه الحالات هو التدخل الجراحي , ولكن مع التطور الحالي في وسائل التشخيص والعلاج مع استخدام الأشعة التداخلية لعلاج بعض الحالات مما أدى الى انخفاض نسبة التدخل الجراحي الي ما بين 20 الي 50 % من اجمالي الحالات.

وينبغي الوضع في الإعتبار المضاعفات التي يمكن أن تحدث مع استخدام العلاج التحفظي مثل وجود اصابات باعضاء اخرى بالجسم والتي تستدعي التعامل معها على حدة, أو حدوث نزيف داخلي في وقت لاحق أثناء فترة العلاج التحفظي.

ولاتزال اصابات الأعضاء المجوفة هي الأصعب من حيث التشخيص مع العلم بأن وجودها يؤدي الي تغيير جذري في خطة العلاج والتحول إلى التدخل الجراحي.

مع ندرة اصابات البنكرياس والإثنى عشر إلا أنها تبقى صعبة التشخيص نظرا لموقعهما التشريحي. ونظرا للعواقب الوخيمة التي قد تحدث نتيجة للتأخير في تشخيص هذه الإصابات مما يجعلها موضع اهتمام خاص.

ولقد اصبح العلاج التحفظي لإصابات البطن الغير نافذة شائعاً في كثير من المجتمعات مع الإعتماد علي توافر الكفاءات الجراحية والأشعة التشخيصية والقدرة على تحليلها التحليل الصحيح.

اصابات البطن الغير نافذة في البالغين، العلاج التحفظي مقابل التدخل الجراحي.

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INTRODUCTION

Trauma represents a major public health problem. It is the principal cause of death during the first half of normal human life span and the 4th leading cause of death in all age groups.⁽¹⁾

Most countries of the world are experiencing arise in the incidence of trauma, but the most spectacular increase has been in the developing countries. Proliferation of roads and use of vehicles has led to rapid increase in injuries and deaths.⁽²⁾

Abdominal trauma may be broadly classified into blunt (non-penetrating) and penetrating trauma.⁽³⁾

Motor vehicle accidents account for 75% of cases of blunt abdominal trauma (BAT).⁽³⁾

BAT is a leading cause of morbidity and mortality among all age groups.⁽⁴⁾

Identification of serious intra-abdominal pathology is often challenging. Many injuries may not manifest during initial assessment and treatment period.⁽⁴⁾

The mechanism of injuries often directs the physician's attention to potentially life threatening intra-abdominal pathology.⁽⁴⁾

The severity of injury is related to the force and duration of impact, as well as the patient's contact area.⁽³⁾

The forces implicated in injuries to intra-abdominal

structures involve 2 primary mechanisms of injury namely compression forces and deceleration forces.⁽⁴⁾

The conservative management of BAT became well accepted and well documented in the medical literature. This rule is more apparent in children and in cases of renal, splenic, hepatic and retroperitoneal injuries where most patients respond adequately to such an approach. On the other hand complications of such conservative management were also documented.⁽⁵⁾

Assessment and management of patients with BAT remains a challenge for emergency surgeons.⁽⁶⁾

The spectrum of injury ranges from trivial to catastrophic injuries. Thus initial assessment, resuscitation and investigation of a patient with abdominal trauma must be individualized.⁽⁶⁾

The main problem with all abdominal injuries lies in establishing the correct diagnosis soon enough to prevent death and limit morbidity.⁽⁷⁾

Exploratory laparotomy was the primary method of screening patients with BAT. However, the recent advances in diagnostic imaging procedures have decreased the rate of negative explorations.⁽⁸⁾

The new concepts of conservative treatment of patients with BAT represent an area of controversy among surgeons.⁽⁸⁾

AIM OF THE WORK

Blunt Abdominal Trauma has often proved to be the trauma surgeon's nemesis. And here comes the debate...

How shall we manage?

Any surgeon is familiar with a case for which he decided a conservative treatment but unfortunately it ends in a laparotomy. On the other hand, who didn't face a negative laparotomy for a traumatized patient?

“The aim of this review is to put a hand on the best way in management the patient with blunt abdominal trauma.

To be aware when and how to conserve and when to say yes, it's the time for surgical intervention.”