Prevalence of Negative Exploratory Laparotomy in Some the Hospitals of Al-Russafa Side of Baghdad City

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Abstract

Not all abdominal trauma need laparotomy thus this study has been conducted to evaluate the prevalence of negative laparotomy in some of the hospitals of Al-Russafa side of Baghdad city. A retrospective cross-section study was be conducted in four hospital (Baghdad Teach hospital, Al-kindy, Al-sadder, Al-emam Ali hospital) in Baghdad city. The period for data collection are (8) months from February to September 2014. Data was analyzed using the SPSS.

This study revealed that the distribution of –ve labratomy are (6) for AL-Sadder hospital and (4) for other hospitals in sample with (12%) for Al-sadder hospital ,(11.76 %) for Al-emam Ali and Baghdad hospitals, and (8) for Al –kindy hospital,The results of this study indicated that one ten of all expletory lapratomy was negative lapratomy. The prevalence distribution of expletory lapratomy are difference between hospitals of Al-russafa and also there is difference in the prevalence of –ve expletory lapratomy among these hospitals.

Based on this study Reliance on algorithm for patients with abdominal trauma should be to identify injuries requiring surgical repair, and to avoid unnecessary laparotomy. In addition provide imaging modalities and other investigative techniques in all hospitals and training of medical staff working in hospitals on focal assessment sonography for trauma program(FAST).

Key words: *exploratory laparotomy, negative lapratomy, prevalence.*

Introduction

"Exploratory laparotomy defined as a laparotomy process that purpose for obtaining information that is not available by clinical diagnostic tools. It is usually performed in patients with acute, or unexplained abdominal pain, in patients who complained persistant abdominal trauma, and in patients with a malignancy" [(1,2)]" Exploratory laparotomy indications included acute-onset abdominal pain and clinical results of intra-abdominal pathology necessitating emergency surgery, and abdominal trauma associated with shock, Peritoneal irritation and Hemodynamically unstable trauma patients [(1,3)] Availability of good imaging instruments and facilities (C.T,U.S) have restricted or reduced the use of exploratory laparotomy in these cases[(4,5,6).] "The essential contraindication for exploratory laparotomy is unsuitable for general anesthesia. Peritonitis with severe sepsis, advanced malignancy, and other conditions may maker patient's unfit for general anesthesia [1]. "Non therapeutic exploratory laparotomy is associated with significant long-term morbidity, including adhesive intestinal obstruction and incisional hernia,For most cases the non-therapeutic laparotomy rate will be unacceptably high. With the incidence of consequent with a negative laparotomy of 12% - 41%, with remain

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in the hospital of 4-8 days, this lead to health risk to the patient and economic burden to hospitals" (7, 8, 9). Trauma is one of the common reasons of death because of the increase of violence in our society, and is a major economic and health problem. The abdomen is the third most common injured region, Abdominal trauma is classified as either blunt or penetrating , and not all abdominal trauma need laparotomy" (10, 11,12).

In the past two decades from exploration, the trend has moved in to selective approach **"(13,14,15).** laparotomy for penetrating abdominal stab wounds leads to unnecessary operations in 38–40% of patients **"(16, 17)."** The goal of any algorithm for patients with abdominal trauma should be to identify injuries requiring surgical repair, and avoid inappropriate laparotomy with its linked morbidity" **(18-19).** This study aimed to provide data on prevalence of expletory lapratomy among patient with abdominal trauma in random sample of some of AL-russafa side of Baghdad city hospitals,and the –ve expletory lapratomy among those patients.

Method

Setting of the study: This study was be conducted in four hospital in some of ALrusafa side of Bghdad (Baghdad Teach hospital, Al-kindy, Al-sadder, Al-emam Ali hospital) in Baghdad city.

Design of the study : A retrospective cross- section study.

Duration of the study : The period for data collection are (8) months from February to September 2014.

Study sample : The data were collected retrospectively from case sheet for (168) patients with abdominal trauma and exploratory laparotomy were done for them. Data collection were carried out from four main general hospitals that selected randomly from eight main general hospitals in Alrusafa side of Baghdad.

Inclusion criteria:- All patients with abdominal trauma and exploratory laparotomy were done for them.

Exclusion criteria:- Patients were done exploratory laparotomy and without abdominal trauma.

Data analysis: Data was put in computer file for storage and statistical tables were used to represent the frequency and percentage of the results. Statistical data obtained were analyzed using Statistical package for the social sciences (SPSS version 16).

Findings

Figure (1) displays the percent of exploratory laparotomy. Among the 168 cases, 18(11%) of -ve laparotomy and 150 (89%) of +ve laparotomy, the study found The study found the prevalence of –ve expletory lapratomy (10.7%) 18 cases and +ve expletory lapratomy are (89.3%) 150 cases from total number of the sample .High prevalence of –ve expletory lapratomy lead to economic burden to health institutions in addition to the burden on the patients **(7,8,9).** Navasaria and colleagues at south africa, they assessed 86 patients with abdominal stabs where expletory lapratomy done for them, there were 7 negative laparotomies (8.1%) **20** . Other study at Al-Zahra hospital in Isfahan show the penetrated anterior abdominal fascia without visceral evisceration and in the absence of signs of peritoneal irritation, rate of negative laparatomy was 82 percent **3** . Other study done at the Los Angeles County , University of Southern California Medical Center,over the six year study period a total of 1871 laparotomies were performed, of which 73 (3.9%) were negative" **21** . High percent of unnecessary laparatomy in our study may due to lack of imaging and other investigative techniques and depend on physical examination for case evaluation in our hospitals.

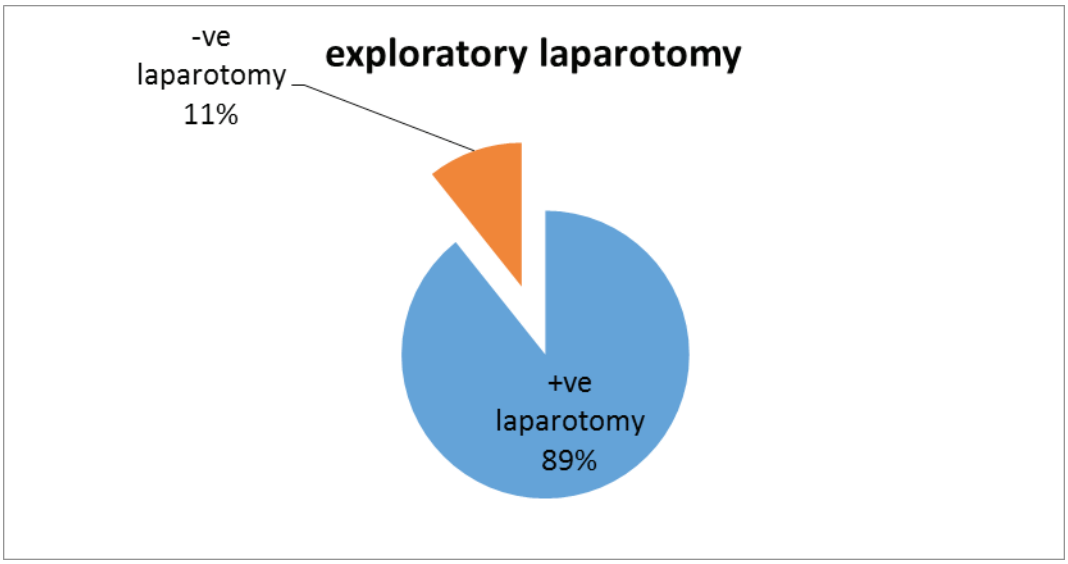

Figure (1) Distribution of the patients according to type of exploratory laparotomy

The total of exploratory laparotomy was (168) in four main general hospitals in Alresafa side of Baghdad during the period of the study.

Table (1) show that Al- kindy and Al-sadder hospitals have (50) exploratory laparotomy,these number is large comper with other Al-russafa side of Baghdad city hospitals ,this may because it cover alarge population density ,the high violence and explosions in the coverage area for these hospitals And Al-emam Ali and Baghdad hospitals have (34) exploratory laparotomy. The cases that done lapratomy in AL-emam Ali hospital are lower than Al-sadder hospital(50lapratomies) inspit of the both hospitals located in the same geographical area and provided medical health services to the same population

this difference may be due to restoration done in Al-emam Ali hospital and limitation of surgical bed number. Number of lapratomies in Bagdad hospihal 34 lapratomies,this low number in spite of this hospital is center teaching hospital in Baghdad with large bed number and good resources ,this low number of lapratomies may because of the distance from the area where the explosions abound and away from large population density .

Table (1): Distribution the patient according to hospitals that exploratory laparotomy done.

Hospitals	**NO. of exploratory laparotomy**	**%**
Al-kindy	50	30%
Al-sadder	50	30%
Al-emam Ali	34	20%
Baghdad hospital	34	20%
Total	168	100%

Table (2) The distribution of –ve labratomy are (6) for AL-Sadder hospital and (4) for other hospitals in sample with (12%) for Al-sadder hospital ,(11.76 %) for Al-emam Ali and Baghdad hospitals, and (8%) for Al –kindy hospital. The percentage of –ve lapratomy in Alkindy hospital was 8%and this low number comparative with other hospitals ,this may because surgeon and doctors in emergency unit well trained on

U/S examination for trauma, fast (focused assessment sonography for trauma) which is one of important tools to reduced negative lapratomy "[22,23,24].

Table (2) :The distribution of study sample according to (+ve and ve) exploratory laparotomy finding.

Hospitals	No. of exploratory laparotomy	No. of +ve laparotomy	No. of -ve laparotomy	% of –ve lapratomy
Al-kindy	50	46	4	8 %
Al-sadder	50	44	6	12 %
Al-emam Ali	34	30	4	11.76%
Baghdad hospital	34	30	4	11.76%

Conclusion

The present study was concluded that one ten of of all expletory lapratomy was negative lapratomy. The prevalence distribution of expletory lapratomy are difference between hospitals of Al-russafa and also there is difference in the prevalence of –ve expletory lapratomy among these hospitals.

Recommendations:-

1 -Reliance on algorithm for patients with abdominal trauma, should be to identify injuries requiring surgical repair, and to avoid unnecessary laparotomy.

2- Provide imaging tools and other diagnostic techniques (C.T,U.S,M.R.I) in all hospitals

3- Training of medical and health staff working in hospitals on focal assessment sonograghy for trauma program (FAST).

Ethical Clearance: At the beginning of the study we obtained an official approval ethical to conduct study from the Ministry of Health (MOH) and Directory of Health / Baghdad Al-Rusafa.

Conflict of Interest: Nil

Source of Funding : Nil

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