

Clinical Study of Isolated Splenic Trauma – Our Experience at Gmkmch, Salem.

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Abstract:

Introduction: Splenic Trauma Is The Most Common Organ Involved In Blunt Injury Abdomen. Among Which Road Traffic Accidents Accounts The Most Of The Cases.

Background & Aim: The Aim Of Our Study To Evaluate The Morbidity, Morality & Management Of Isolated Splenic Trauma. It Account For About 8% Of All Traumatic Admissions And 40-60 % With Significant Blunt Splenic Injury.

Materials & Methods: A Prospective Study Of 50 Patients With Isolated Low And Moderate Grade (1 To 4) Blunt Splenic Trauma Admitted In Our Trauma Ward, Gmkmch, Salem. During The Period Of 1 Year From August 2018 To August 2019.

Observation: Out Of 50 Patients, 35 Were Treated Conservatively, Monitored Serially And Discharged And 5 Patients With Unstable Hemodynamic Was Operated.

Conclusion : Non Operative Management Was Preferred Management For Hemodynamically Stable Patient With Less Morbidity And Mortality.

Keywords: Blunt Splenic Injury, Road Traffic Accident, Grade Of Injury

Introduction:

In spite Of Its Position Under Rib Cage, Spleen Remain The Most Common Organ Involved In The Blunt Injury Abdomen. In Which Road Traffic Accidents Remain Major Mode Of Injury. Recent Advance In The Radiological Techniques Makes Shift Towards Non Operative Management Of The Splenic Trauma. The Present Study Evaluates The Outcomes Of Isolated Low To Moderate Grade Splenic Trauma Management At Gmkmch, Salem.

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I. Aim and Objectives

Aim of Our Study Is To Evaluate the Outcome Of Isolated Low And Moderate Grade Splenic Trauma At Gmkmch, Salem

II. Material and methods:

Study design - prospective non randomised study

Study group – Over a period of 1 year, 50 patients with low and moderate grade (I-IV) isolated blunt splenic trauma admitted in trauma ward at GMKMCH, Salem were enrolled in our study

Inclusion criteria:

- Male and female with isolated blunt splenic trauma
- Age between 20 – 70 years
- Hemodynamically stable patients
- Patient giving consent for study

Exclusion criteria:

- Patients associated with other injuries like spleen, bowel, etc.,
- Patient with co morbidities
- Hemodynamically unstable patients
- Patient not willing to give consent

Study method instituted:

From August 2018 to August 2019 a study was conducted to know the outcome of non operative management of blunt splenic trauma among patients admitted in surgical trauma ward in GMKMCH, Salem.

All patients were serially monitored by the trauma care team. History regarding the mode of injury, hemodynamic status of the patients were monitored serially. Patients with low and moderate grade splenic trauma with hemodynamically stable patients were treated as non operative management. Patients grouped according to the CT GRADING of injury.

Patients were treated in ICU with serial monitoring of haemoglobin, blood pressure, pulse rate, urine output, respiratory rate , saturation, abdominal girth. Any deterioration in above mentioned parameters were monitored and managed accordingly. Patients were followed till the date of discharge.

III. Results and Discussion

Among 50 patients with low and moderate grade isolated splenic injury . Nature of injury, demographics, grade of splenic injury, number of blood transfusion, duration of hospital stay, morbidity and mortality among them were monitored and analysed.

Table 1: Mode of injury:

MODE OF INJURY	NO OF PATIENTS	PERCENTAGE
Road Traffic Accident	28	56%
Self Fall	15	30%
Fall From Height	5	10%
Assault	2	4%

In our study majority of patients 56% of had blunt splenic trauma due to road traffic accidents, followed by self fall accounts 30% , fall from height 10% and assault 4%.

Table 2: Sex Incidence:

Female cases		Male cases	
no of cases	percentage	no of cases	percentage
14	28	36	72

72 % of people in our study is males. 28% were females.

Table 3: Age Incidence:

Age group	No of cases	Percentage
21-30	18	36
31-40	16	32
41-50	9	18
51-60	4	8
61-70	3	6

Table 4: Grade Of splenic Injury:

Grade of splenic injury	No of patients	Percentage
I	11	22.5
II	18	35
III	15	30
IV	6	12.5

Grade II splenic injury is commonest, followed by grade I, grade III & grade IV. I & II were considered as low grade. III & IV were considered as moderated grade.

Table 5: Number Of Blood Products Received:

Grade of liver injury	No of blood products recieved
I	0 +/- 1
II	0 +/- 1
III	1+/-1
IV	2+/-1

Low grade injuries rarely needs blood transfusion. Moderate injury needs blood transfusion based on the hemodynamic status.

Table 6: Management:

Grade of liver injury	Non operative management		Operative management	
	no of cases	percentage	no of cases	percentage
I	11	100%	Nil	--
II	18	100%	Nil	--
III	13	87%	2	13%
IV	2	33%	4	67%

- In our study out of 50 patients, 29 patients – 60% of patients were hemodynamically stable and managed conservatively.
- About 30% - 15 patients presents with hemodynamic instability, managed with blood transfusion, I v fluids without any increase in morbidity..
- About 6 patients presents with profound shock, prolonged need of blood transfusion, hemodynamically instable, hence planned for emergency operative management.

Table 7: Length of hospital stay:

Grade of liver injury	Length of hospital stay
I	7+/-2 days
II	7+/- 3 days
III	12+/-2days
IV	14 +/- 4days

Average length of stay for grade I & II splenic trauma was 7 to 10 days, grade III& IV splenic trauma was 10 to 14 days.

IV. Conclusion

Non operative management remain main stay for low grade and hemodynamically stable moderate injury cases. In patients profound hemodynamic instability operative management remains main mode of treatment.

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