Time to Definitive Surgery in Pelvic and Acetabular Injury during Pre-Covid and Covid Time: A Preliminary Analysis

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PURPOSE

The study compares the time to definitive surgery (TTDS) and whether it affects the immediate complication (intraoperative blood loss) and functional outcome of patients. The data is collected as part of a comparative cross-sectional, multi-centre study in 3 trauma centres in Malaysia.

METHODS

All pelvic and acetabular injuries during 6 months prior to Covid-19 pandemic (before February 2020) and during Covid-19 pandemic (from March 2020) were included in the studies. Patients with open fractures, stable fractures, more than 60 years old, with significant pre-morbidities, immature bone, history of pin site infections were excluded from the study. Data was collected from hospital records and functional outcome was recorded from clinic follow up at 9 months post-operatively.

RESULTS AND DISCUSSION

Total patients recruited were 43. Majority are male within the age range of 20-40 years old. There were reduced number of referrals from centres more than 100km away from HTJS during Covid-19 era and the mean TTDS was 12 days compared to 15 days during Pre-Covid-19 era. TTDS is highly influenced by accessibility to a trauma centre with a consultant in advanced musculoskeletal trauma. Other centres defined early surgery to be less than 72 hours[1], but the shortest time within our patients were 5 days; with an exception of 1 patient who had a definitive pelvic external fixator fixed on day of injury. Immediate and functional outcome seemed to fare similarly within both groups; majority are in 15-30% blood loss and has good hip scores.

Table 1: Results

		Pre-Covid	*Covid*
No. of patient	**Male**	16	17
	Female	7	3
Age (years)	**<20**	2	4
	20-40	17	8
	>40	4	8
TTDS (days)	**<7**	3	1
	7-14	9	13
	>14	11	6
Referral from	**<100km**	9	15
	100-200km	6	2
	>200km	8	3
Poly-trauma	**Yes**	4	6
	No	19	14
Intraoperative blood loss (%of body volume)	**15**	4	6
	15-30	9	8
	30-40	4	3
	>40	6	3
Op duration (hours)	**<3**	2	5
	3-6	10	11
	>6	11	4
Merle d'Aubigne Hip Score	**Good >10**	20	19
	Fair 8-9	2	1
	Poor <7	1	0

CONCLUSION

Preliminary data showed that there is a difference between TTDS among pre-Covid-19 and Covid-19 pandemic. A detailed statistical analysis is planned and data from other trauma centres will be analysed to get a statistically significant finding.

REFERENCES

1. Katsoulis E et al; Impact of timing of pelvic fixation on functional outcome. Injury. 2006 Dec 1;37(12):1133-42