

Table 5: Types of resection and complications

	T1	T1/2	T2	T2/H1	T2/3	T3	T4	T1/4	AMP	Total
Infection	2				3	1	1	2	5	14
Hematoma									1	1
skin/flap problem									2	2
Venous thrombus	1	1								2
nerve injury		1		1	2			1		5
Phantom limb pain									3	3
Urinary incontinence							2			2
Erectile dysfunction							1			1
Prosthetic dislocation					3					3
Require additional surgery	1				3	1	2	2	4	13

Table 6: Functional Result in relation to surgical of procedure

	T1	T1/2	T2	T2/H1	T2/3	T3	T4	T1/4	AMP
Mean Functional Score	22.8	19.3		18	12	27	25	19	5
Range	(12 – 29)	(19 – 20)		(15 – 21)	(3 – 18)		(15 – 30)	(8 – 28)	(0 – 10)
Emotional Acceptance	4.5	4.3		4.5	2.7	4.5	3.9	3.3	2
Functional score excluding the emotional acceptance component	18.3 (73.2%)	15 (60%)		13.5 (54%)	9.3 (37.2%)	22.5 (90%)	21.1 (84.4%)	15.7 (62.8%)	3 (12%)

graft. 2 patients required subsequent rectus flaps. 1 patient required a rhomboid flap. 1 patient required a Latissimus Dorsi flap but due to recurrent wound infections subsequently underwent external hemipelvectomy.

The complications in relation to the type of pelvic resection are shown in Table 5.

Functional Outcome

The outcomes for 44 patients were assessed. According to the criteria of Enneking et al [1], 11 patients had excellent functional results, 7 patients had good functional results, 9 patients had satisfactory functional results, 5 patients had fair functional results, and 12 patients had poor results.

The functional results in relation to the performed surgical procedure are shown in Table 6.

Of the internal hemipelvectomy, Type 3 and Type 4 pelvic resections have the best mean overall functional scores and are both in the range of excellent functional result. On the other hand, combined type 2 and 3 resection has the worst mean overall functional score and falls in the range of fair functional result.

The mean overall function score for external hemipelvectomy falls in the range of poor functional result.

When the emotional acceptance score is excluded from the overall functional score, Type 3 and Type 4 pelvic resections still have the best total score. Resections involving the hip joint (i.e. T1/2, T2/H1, and T2/3) all scored below 60% of the total.

All internal hemipelvectomy have mean emotional acceptance score of greater than 4 except combined type 2 and 3 pelvic resection, combined type 1 and 4 resection, and type 4 resection. (They scored 2.7, 3.3 and 3.9 respectively)

External hemipelvectomy has the lowest mean emotional acceptance score.

Discussion

Pelvic resections are complex. They are technically difficult due to the usually large size of pelvic tumours, and the close proximity of pelvic viscera and neurovasculature of the pelvis and lower limb. The technical and human resources required are intensive. Patients often require large amount of blood products. They require post-operative recovery in ICU and in most cases long periods of in-