

STUDY OF THE PREVALENCE OF POST OPERATIVE PROSTHETIC JOINT INFECTION AT EL-HADRA UNIVERSITY HOSPITAL

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Introduction

Joint replacement is a life-enhancing procedure for millions of people worldwide each year. Successful joint replacement provides Pain relief, restores function and independence, and improves patient Quality of life. While already a frequently performed procedure, the Incidence of prosthesis implantation is expected to continue to rise. In the United States alone, there were 332,000 total hip and 719,000 Total knee arthroplasties performed in 2010. The numbers are Projected to reach 572,000 and 3.48 million by 2030 for hips and Knees, respectively. In Europe, a larger number of patients undergo primary hip arthroplasty than knee arthroplasty. In addition to hip and knee replacement, shoulder, elbow, and ankle arthroplasties are now available. The total number of patients with existing arthroplasties in place continues to increase.

Aim of the work

This study aims to study the prevalence of post operative Prosthetic Joint Infection in cases operated in El Hadara University Hospital to help understand and improve knowledge about rate and risk factors of prosthetic joint infection and hence reduces the risk of prosthetic joint infection and its devastating consequences.

Patients and Methods

This was a retrospective study that included all patients who had Total Hip Replacement and Total Knee Replacement, operated at Specialized orthoplasty center, El Hadara University Hospital during the year 2021, the operative was done by orthoplasty consultant in the same operative room, and same preparations. In this study, a total of 430 patients underwent total joint replacement procedures, including 253 patients who received total hip replacements (THR) and 177 who underwent total knee replacements (TKR). During the postoperative follow-up period, a total of 160 patients were lost to follow-up, comprising 98 patients with THR and 62 with TKR.

Consequently, the final cohort analyzed in this study included 270 patients, specifically 155 patients with total hip replacements and 115 patients with total knee replacements. This adjusted sample provides the basis for evaluating postoperative outcomes and associated variables, as the loss to follow-up reduced the number of patients available for analysis from the initial cohort.

Results

Surgical Hx	Outcome			
	Not infected “n=262”		Infected “n=8”	
	No	%	No	%
Free	138	52.7	0	0.0
Positive	124	47.3	8	100.0
Total	262	100.0	8	100.0
X2	8.619			
P value	0.003*			

$X^2 = Chi\ square\ test$

$P\ was\ significant\ if\ \leq\ 0.05$

$\ast = significant\ at\ level\ 0.05$

Table (2): Relation between incidence of infection and operative time category.

Operative time category	Outcome			
	Not infected “n=262”		Infected “n=8”	
	No	%	No	%
<2 h	259	98.85	5	62.5
> 2 h	3	1.15	3	37.5
Total	262	100.0	8	100.0
X2	50.615			
P value	0.001*			

$X^2 = Chi\ square\ test$

$P\ was\ significant\ if\ \leq\ 0.05$

$\ast = significant\ at\ level\ 0.05$

Conclusion

Incidence of PJI is reduced when joint arthroplasty is performed by high specialized arthroplasty center by experienced surgeons who always restricted to guidelines.