Mid Term Results In 46 Cases Of Semi-Constrained Primary Total Knee Arthroplasty (TKA) Done In A District Hospital

INTRODUCTION
Total knee arthroplasty (TKA) has revolutionized quality of life in patients with osteoarthritis of the knee. [1] There are specific indications to using the Semi-constrained knee prosthesis and hence not the commonest type of TKA prosthesis. [2] The aim of this study was to evaluate and compare the outcome of semi constrained knees against standard knee prosthesis.

MATERIALS & METHODS
Patients with severe and complex primary osteoarthritis of knee (i.e. those indicated for metal wedge augment, extension stem or semi-constrain insert) requiring arthroplasty, attending Orthopaedic clinic of HSAH, Sungai Petani, from 2008 till 2016 were included in the study. Clinical data of 46 cases operated with semiconstrained knee prosthesis were recovered among 447 cases which underwent arthroplasty from the hospital arthroplasty registry. All patients were clinically evaluated pre and postoperatively regarding status of knee using Knee Society Score (KSS) and WOMAC scoring system. All patients were operated by the same surgeon. The results were recorded and assessed by the same scoring system postoperatively. Results were analyzed using Excel and SPSS Ver.22.

RESULTS
39 patients underwent knee replacement in 46 knees using semi-constrained knee prosthesis. 7 of these were operated bilaterally. Most of the patients were females (76.9%). The average age at surgery was 63.8 years. Results of this group were compared to results in 208 matched patients who underwent TKA using standard knee prosthesis. Results were also analyzed in patients who had patellar resurfacing to those who did not undergo this procedure. The pre-operative and post-operative WOMAC and KSS scores were statistically analyzed using SPSS with repeated measure ANOVA for group comparison and significant level was set p-value < 0.05. The average follow up period was 43 months.

DISCUSSIONS
In the entire cohort of 254 cases, 46 cases underwent knee replacement using semi-constrained knee prosthesis had good to excellent post-operative KSS score (mean=84.5) and WOMAC score (mean = 94.7) which is comparable with the group of patients who underwent knee replacement using standard knee prosthesis.

CONCLUSION
Given the complexity of cases that indicate the use of semi-constrained knees the number of patients in this cohort is expectedly small.

ABSTRACT TRUNCATED