Assessment of pain and trismus and determining the difficulty level of tooth extraction with modified Parant scale

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Introduction: Third molar extraction is the most commonly performed procedure by oral and maxillofacial surgeons and most of the extraction leads to minimum per and postoperative difficulties if proper preoperative planning is done and if surgical principles are strictly followed.

Objective: The objective of this study was to evaluate whether postoperative pain and trismus were related to difficulty of surgery.

Methodology: Total number of patients included in this study were 266 (male 135 and female 131), age range from 18 to 34 years. Preoperative diagnosis was made by clinical examination and radiographs. Clinical examination was done to determine pain, swelling and mucosal coverage of tooth whereas OPG and RVG were taken to assess the angulations, level of tooth impaction and bony coverage of tooth. Standardized technique was used for tooth extraction; buccal guttering, adequate elevation, reflection of mucoperiosteal flap, crown sectioning and ostectomy. Evaluation of pain and trismus was done preoperatively, on first and third postoperative day. SPSS version 16 was used to analyze the data. Chi square (x²) test and unpaired t-test were done. Modified Parant scale was used to evaluate the difficulty of tooth extraction; Group I: forceps extraction; Group II: ostectomy; Group III: ostectomy and crown sectioning; Group IV: difficult extraction.

Results: When both preoperative and postoperative results were compared after data analysis, pain was significantly reduced and significant inter incisal opening was achieved, in both the groups P>0.05. The results were statistically not significant.

Conclusion: Postoperative pain and trismus was minimum in (Group I) then in (Group II to IV). The incidence of postoperative pain and trismus among all the groups were similar. Hence, no significant difference was found. Inter incisal distance should always be measured by the same surgeon to avoid observer bias. Whenever the patients are asked to open the mouth to measure inter incisal distance, the measurement differ in every follow up. Hence, normal distance may vary considerably in same patient. Postoperative pain can be reduced, and maximum mouth opening can be achieved with meticulous tissue manipulation, administration of analgesics, and proper wound care by patient and regular follow-up. However, this study has tried to evaluate the results objectively by comparing pre and post-operative photographs and patient clinician interaction.

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