EVALUATION OF A NEW ARTHROSCOPIC ALL-INSIDE MENISCAL REPAIRING TECHNIQUE

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In the present study primary fixation strengths of arthroscopic repairing techniques and also primary fixation strength of a new arthroscopic all inside suture technique were investigated. In this study right lower extremities of 50 calves with a mean age of 1 year were used. 2mm full thickness longitudinal tears were created in the centre of medial meniscus 2-3mm apart of its periphery by arthroscopic techniques. Group 1: Vertical loop suture via outside-inside technique (PDS No: 0); Group 2: Vertical loop suture by using Viper device (PDS No: 0); Group 3: Repairing with Rapidloc implant; Group 4: Repairing with H-Fix, Group 5: Repairing with Clearfix implant. Load- failure strengths of the repairing techniques were assessed by biomechanical testing machine. Mean load-failure strengths of group 1, 2, 3, 4 and 5 were 145.1±13.2, 136.1±33.2, 33.4±6.3, 20.3±3.1 and 28.3±6.3 Newton respectively. Although group 1 revealed the highest fixation strength, there was no significant difference between group 1 and group 2. Fixation strengths of group 1 and 2 were significantly higher than implant groups. There was no significant difference in terms of fixation strengths between group 3 and group 5, whereas fixation strengths of these groups were significantly higher than group 4. Vertical loop suture technique by Viper device revealed similar results in terms of primary fixation with outside-inside vertical loop suture technique which is accepted as gold standard in meniscus repairing.