



Influence of platelet- rich plasma (PRP) after surgical removal of impacted lower third molars



Kiro Papakoca, Mihajlo Petrovski, Terzieva-Petrovska Olivera, Minovska Ana

Background: Surgical extraction of mandibular third molars often causes pain, swelling and bony defects and prolonged postoperative recovery of patients.

Aim: The main aim of this study was to assess whether the use of platelet-rich plasma can cause decreasing of the pain and swelling in the postoperative period after third molar surgery.

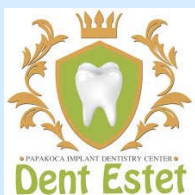
Material and method: The case-control study was undertaken in one private dental office and included 30 patients divided in two groups:

- group A consists of the 15 patients where PRP was placed in the extraction socket before surgical closure and
- group B consists of 15 patients as a control group where the extraction sockets will be closed without any medicaments.

Results: Soft tissue healing was better in the PRP compared to the control site. In this group there were no patients with bleeding on palpation or granulation tissue formation. Bleeding on palpation was present in one patient on the first day in control group. Mann-Whitney U test showed no significant difference between immediate postoperative pain and after 1, 3 and 7 days between the case and control groups. There were significant difference between the immediate postoperative swelling after 1 and 3 days between the case and control groups. The postoperative complication dry socket was observed in three patients in the control group and in 1 in the study group.

Paramtars	Group A N= 15			Group B N=15		
	1 day	3 day	7 day	1 day	3 day	7 day
Pain	3	1	0	4	3	1
Bleeding on palpation	0	0	0	0	2	0
Swelling		4	0		5	1

Comparison of pain , bleeding and percent facial swelling in each study group



Conclusion:

The study has shown an improvement in the soft tissue healing after third molar surgery in cases treated with PRP compared to the control group after surgery.