# Tension-free primary closure with autologous platelet gel versus vivostatTM for the definitive treatment of chronic sacrococcygeal pilonidal disease.

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## Abstract:

Objective: A randomized clinical trial was performed in patients with chronic or recurrent pilonidal sinus (PS) comparing primary closure coupled with random application of in house autologous platelet gel or produced by means of VivostatTM in order to assess whether a standardized product had an impact on the wound healing process. Patients and Methods: Between June 2006 and June 2009, 100 patients (82 males, 18 females: median age 30 years; range, 16-51 years) underwent wide excision of the pilonidal area with midline tension-free closure and were randomly given either the in house autologous platelet gel (Group 1) or the VivostatTM gel (Group 2). Results: Group 2 patients had shorter wound healing time (8 vs. 10 days; $p<0.0001$), time to return to full activity (11 vs. 16 days: $p<0.0001$), less uncomplicated fluid collections (120 vs. 190 ml: $p<0.0001$), and fewer postoperative wound complications (1/50=2% vs. 5/50=10%, $p<0.001$). After a median follow-up of 21 months (range: 4-40 months), two recurrences were detected in Group 1. Conclusion: The standardized production of platelet gel by means of the VivostatTM system guarantees the reproducibility of the procedure and its use was correlated with an improved outcome, with a high degree of patient satisfaction and better cosmetic results.