

OP3

Complications associates to primary closure in surgical procedures in diabetic foot osteomyelitis

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Introduction: Osteomyelitis is the most frequent infection in diabetic foot. Around 30%-40% of these infections involve the bone. Surgical debridement of the affected tissues is commonly accepted like the best option for a good prognosis and resolution. However currently there is not a protocol about which procedure and management of the osteomyelitis is the best in safety and effectiveness aspects.

Objective: To determine the complications associates to primary closure in surgical procedures in comparison with secondary intention closure, in patients with diabetic foot osteomyelitis. **Material and Methods:** Comparative study which include 46 patients (65,2% men and 34,8% women), 62,65+/-18 years-old, with diabetic foot ulcers diagnosed of osteomyelitis through probing-to-bone, XR, swab culture and infection's clinical signs. Surgical debridement of the infected bone involved was performed in all patients. 34 (73,9%) patients were closed with primary intention with a monofilament simple suture (Group 1). The rest of the patients 12 (26,1%) were the wound open until wound healing (Group 2). Post-surgical complications were recording during follow-up of the patients.

Results: The average healing time were 9,9 +/- 8,4 weeks in group 1 versus 19,1 +/- 16,9 weeks in group 2 (p=0,06). Percentage of total complications was 61,8% in group 1 versus 58,3% in group 2 (p=0,834). Complications are showing in the table below:

Complications	Group 1	Group 2	P value
Hematoma	5,9%	-	<0,001
Dehiscence	23,5%	-	<0,001
Slough	11,8%	25%	0,272
Exudate	20,6%	50%	0,05
Oedema	-	16,7%	<0,001
Re-infection	32,4%	41,7%	0,560
Pain	3,1%	16,7%	0,112
Necrosis	9,4%	8,3%	0,915

Discussion: Patients who received primary closure healed faster than secondary closure, although without statistics differences. Primary closure had similar rate of complications, and had less percentage of exudates, oedema and reinfection. Aversely general opinion about this approach did not seem more risk than secondary closure and will be a good option especially in chronic osteomyelitis.