

Double Blinded Randomized Controlled Trial comparing budesonide and saline nasal rinses in the post-operative management of Chronic Rhinosinusitis

Shameer Ahamed¹, Divyan Samson², Rajan Sundaresan¹, Bhavya Balasubramanya¹, and Regi Thomas¹

¹Christian Medical College and Hospital Vellore

²Royal Darwin Hospital

May 12, 2022

Abstract

BACKGROUND: Post-operative management of chronic rhinosinusitis is very crucial for outcomes following surgery, Normal saline nasal irrigation and steroid spray form the standard treatment of care in this period. However nasal irrigation may not be adequate and spary is usually started after 2wks of surgery which in any case does not deliver optimum dosage of drug to the paranasal sinus mucosa. Budesonide nasal irrigation in a high-volume low-pressure system could be the solution for a better outcome. **METHODS:** A double blinded randomized control trial with 88 patients in 2 groups of 44 each received normal saline or Budesonide nasal irrigation (0.5mg in 200ml) twice daily. Patients were followed up at 2 weeks post-operatively and 3 months, a SNOT 22 and Lund Kennedy Endoscopic scores were assessed for subjective and objective assessment. Subset analysis of only CRS patients (55) were done, and results presented. **RESULTS:** Patient reported subjective score at 3 months post operatively, SNOT22 was significantly ($p<0.0001$) improved with the use of Budesonide irrigation (26.69 ± 2.92) as compared to Normal saline (30.54 ± 2.81) and objective assessment score, LKES was significantly($p=0.0031$) better in Budesonide group (4.06 ± 0.74) in comparison to Normal saline in the saline (4.50 ± 0.67)respectively. The mean scores 3 months post op visit was significantly lower for both subjective SNOT($p<0.001$) and objective score LKES ($p<0.0001$) in Budesonide groups. **CONCLUSION:** Budesonide nasal irrigation with positive pressure high volume device has better patient benefits and wound healing when compared to normal saline irrigation in the post-operative management of chronic rhinosinusitis.

Hosted file

budesonide re-edit final.docx available at <https://authorea.com/users/482025/articles/568785-double-blinded-randomized-controlled-trial-comparing-budesonide-and-saline-nasal-rinses-in-the-post-operative-management-of-chronic-rhinosinusitis>