

### **Persistent Fistula after Sleeve Gastrectomy: A Chronic Dilemma**

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#### **Abstract**

*Background:* There is no time limit for the occurrence of leaks after sleeve gastrectomy LSG, and very late ones might evolve versus persistent, chronic fistulas. The aim of this retrospective study was to analyze the incidence, treatment and outcomes of persistent, chronic fistulas occurred or treated in a bariatric Center of Excellence IFSO-EC (CoE) and to establish a standardized approach.

*Materials & Methods:* between 2011-2018, nine cases of postoperative leaks occurred on a total of 1365 LSG performed (0.65%), 7 of them having late presentations (onset over 10 days postoperative). Chronic, persistent fistulas were identified and analyzed, including one gastro-bronchial and one gastro-cutaneous fistulas.

*Results:* We present three peculiar cases of very late, chronic type III fistulas, with onset at 6-84 months after primary LSG and their management, including conservative, interventional radiology and endoscopy and surgical therapies.

*Conclusions:* the management of late, chronic type III fistula is variable, with no standard algorithm to follow, but it should be planned based on the clinical evaluation, time of diagnosis, available resources, multidisciplinary approach and expertise. This emphasises again the necessity of a bariatric CoE that can guarantee a better diagnose and treatment, based on the use of wide, available resources, both professional and material.

**Key words:** chronic fistula, sleeve gastrectomy, type III fistulas, gastro-bronchial, gastro-cutaneous