

## Radiofrequency Anal Sphincter Remodeling (Secca) versus Biofeedback for the treatment of Fecal Incontinence: Anorectal Motility & Clinical Results.

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**BACKGROUND & AIMS:** Radiofrequency Anal Sphincter Remodeling (SECCA) has been proposed as noninvasive fecal incontinence (FI) treatment but has not been compared with behavioral treatment (biofeedback). The aim of this study was clinical & physiological evaluation of the anorectal function prior and 12 months after Secca procedure as compared to 6 months biofeedback training.

**MATERIAL:** Forty fecal incontinence (FI) patients (10 male and 30 female, mean age 59 year) have been enrolled into the study; 20 pts (BF group) received 6 months standard (pressure and home EMG) biofeedback training. RF group (20 pts) – age, sex & FISl related - underwent radiofrequency anal sphincter remodeling (RASR). Outcome measures (studied 3, 6 and 12 m after treatment) included: diary, symptom questionnaire, FI severity index (FISl), disease specific life quality (FIQoL), and anorectal physiology (anorectal manometry, 48 channels s-EMG, barostat).

**RESULT:** Secca procedure yielded greater benefit to biofeedback in terms of all studied parameters. FI-SI decreased from 36,9 to 34,6- 30,8 in RF group (compared to 38,4 - 36,9 - 37,6 in BF group) ; FIQoL improved in RF group in all 4 studied parameters while in BF group in 2 of 4 respectively. Resting anal pressure increased significantly in RF group from 30,6 - 39,3 – 43,2,(mmHg)(3, 6, 12 m after) and insignificantly in BF (from 28,4 - 29,2 -30,4). Squeeze anal pressure in RF pts increased from 63,15 - 86,07- 96,3 (p,= 0,002); and from 70,4-74,8,- 68,8 (ns) in BF group. Rectal compliance decreased from 5,6 - 4,0 - 4,2 in RF group while in BF group remains unchanged. All studied s-EMG parameters increased in RF group after treatment as compared to preop. and to BF group.

**CONCLUSION:** Radiofrequency anal sphincter remodeling appeared more effective and stable than biofeedback method of FI treatment. RFASR significantly reduces frequency and severity of FI symptoms, improves patient's life quality and anorectal physiology parameters.