

MODERN CONTACT-BASED BIOFEEDBACK IN COLOPROCTOLOGY

P 713

ABSTRACT
ESCP26-1282

From invasive anorectal probes to non-invasive pelvic floor rehabilitation

Piotr Walega¹, Dorota Zelazny²

¹Collegium Medicum, Sw Anny 12, III Dept of General Surgery, Krakow, Poland

²Narutowicz Hospital Krakow, Dept of General Surgery, Krakow, Poland

KEY MESSAGE

Contact-based BF and ES remove the anorectal probe - improving comfort and acceptance while supporting repeated outpatient rehabilitation.

BACKGROUND

Conventional anorectal biofeedback uses manometric or EMG recordings obtained through intrarectal probes. Although effective, these techniques may be limited by discomfort, invasiveness, tolerance and accessibility during long-term rehabilitation.

AIM

To describe initial clinical experience with non-invasive, contact-based SmartMann BF and ES in colorectal rehabilitation and perioperative prehabilitation.

Focus: feasibility, tolerability and clinical applicability - not comparative efficacy.

DEVICE EVOLUTION

EARLIER MULTI-CHANNEL BIOFEEDBACK



Wired sensors and insertable probes

SMARTMANN HnJ-350



External contact surface - no anorectal probe

METHODS: INDICATIONS AND TRAINING

TEMPORARY STOMA

after rectal resection

6-8 weeks

2x/week - 20 min/session

Prehabilitation before restoration of bowel continuity

RECTAL PROLAPSE

before surgery

6-8 weeks

2x/week - 20 min/session

Pelvic floor conditioning and neuromuscular activation

FI / IMPAIRED SENSATION

colorectal rehabilitation

Repeated sessions

Outpatient training

Contact-based BF and ES without an anorectal probe

PRELIMINARY RESULTS

No patient discontinued therapy

Very good tolerability and acceptance during repeated outpatient sessions.

INTERPRETATION

Removing the anorectal probe may reduce discomfort, embarrassment and hygiene concerns. Potential postoperative benefits require prospective evaluation.

CONCLUSION

Initial experience is encouraging. Larger prospective studies should define long-term outcomes and the role of contact-based BF and ES in colorectal rehabilitation.

E-Poster P 713 – ESCP 21st Scientific Meeting

23–25 September 2026 · Prague, Czech Republic

Presented by Prof. Piotr Walega

European Society of
ESCP COLOPROCTOLOGY

www.escp.eu.com

E-POSTERS

ESCP
21ST SCIENTIFIC
MEETING
23-25 September 2026
Prague, Czech Republic

MODERN CONTACT-BASED BIOFEEDBACK IN COLOPROCTOLOGY **P 713**

From invasive anorectal probes to non-invasive pelvic floor rehabilitation

Piotr Walega¹, Dorota Zelazny²

¹Coloproctology, Gastroenterology and Hepatology, Department of Gastroenterology, Hepatology and Endocrinology, Medical University of Warsaw, Poland
²Coloproctology, Gastroenterology and Hepatology, Department of Gastroenterology, Hepatology and Endocrinology, Medical University of Warsaw, Poland

KEY MESSAGE: Contact-based BF and ES remove the anorectal probe - improving comfort and acceptance while supporting repeated outpatient rehabilitation.

BACKGROUND: Current contact-based biofeedback (CBF) systems require an anorectal probe, which is uncomfortable and painful. This limits patient compliance and adherence, leading to suboptimal outcomes. The aim of this study was to evaluate a non-invasive contact-based biofeedback system (SmartPlex BF) for pelvic floor rehabilitation.

AIM: To develop a non-invasive, contact-based biofeedback system (SmartPlex BF) for pelvic floor rehabilitation and to evaluate its effectiveness and patient acceptance.

DEVICE EVOLUTION:

SMARTPLEX MULTI-CHANNEL BIOFEEDBACK (SmartPlex BF) and **SMARTPLEX H40-50** (SmartPlex H40-50)

METHODS: INDICATIONS AND TRAINING

CONTRAST SUPPLIES: 6-8 weeks, SmartPlex BF system, SmartPlex BF system, SmartPlex BF system, SmartPlex BF system

RECTAL PROLAPSE: 6-8 weeks, SmartPlex BF system, SmartPlex BF system, SmartPlex BF system, SmartPlex BF system

FLIMMABLE SENSATION: 6-8 weeks, SmartPlex BF system, SmartPlex BF system, SmartPlex BF system, SmartPlex BF system

PRELIMINARY RESULTS: No patient discontinued therapy. Very good tolerability and acceptance of the SmartPlex BF system.

CONCLUSIONS: SmartPlex BF system is a non-invasive, contact-based biofeedback system for pelvic floor rehabilitation. It is well-tolerated and accepted by patients, leading to improved compliance and adherence.

REFERENCES: 1. Walega P, Zelazny D. SmartPlex BF system for pelvic floor rehabilitation. *Coloproctology*. 2024;16(1):1-5. 2. Walega P, Zelazny D. SmartPlex BF system for pelvic floor rehabilitation. *Coloproctology*. 2024;16(1):1-5.

ESCP
21ST SCIENTIFIC
MEETING
23-25 September 2026
Prague, Czech Republic