



Brief communication

Two modalities of topical anesthesia for office hysteroscopy

C.M. Stigliano^a, A. Mollo^b, F. Zullo^{b,*}

^aCenter of Preventive Gynecology, Castrovillari Hospital, Cosenza, Italy

^bEndogyn Service, Private Endoscopic Associates, Naples, Italy

Received 29 November 1996; received in revised form 16 June 1997; accepted 24 June 1997

Keywords: Hysteroscopy; Topical anesthesia; Lidocaine; Prilocaine

Although office hysteroscopy is well tolerated without any anesthesia [1], in some instances this exam can be perceived as very painful, thus requiring an anaesthetic approach to minimize patient discomfort [2–4]. The aim of this prospective randomized study was to compare the efficacy of two modalities of local anesthesia on different steps of diagnostic hysteroscopy.

From January 1995 to September 1996, 180 patients were included in the study and randomly allocated in group A or B. All patients not included in the study and with the same outcome measures recorded were considered as a control group (group C).

In 88 patients (group A) 1 cm³ of 5% prilocaine cream (Emla, Astra Farmaceutici SpA, Milan, Italy) was applied on the esocervix and 2 cm³ inserted 3 cm inside the cervical canal 10 min

before starting the procedure (the residual creme was removed by means of a cotton swab at the time of the exam); in 92 patients (group B) two shots of Lidocaine spray, containing 10 mg of xilocaine per dose, were directed on the esocervix and two doses 3 cm inside the cervical canal, immediately before the procedure. In the control group (group C) no topical anesthesia was used. A 5-mm hysteroscope (Karl Storz GmbH, Tuttlingen, Germany) was used by an experienced gynecologist to perform the exam.

The subjective pain was recorded on the basis of a four point scale. The pain experienced at any step of the procedure were significantly different among the treated groups and the controls (Table 1). Furthermore, in group A we found a significant reduction of the pain at the placement of the tenaculum both in comparison with group B and C ($P < 0.01$).

In group A, only the 35.2% of the patients required a time longer than 2 min to perform the

* Corresponding author. Tel./fax: +39 81 5784014.

Table 1
Subjective evaluation of pain during hysteroscopy

Time of hysteroscopy	Four-point scale ^a	Group A	Group B	Group C
Placement of tenaculum ^b	4	—	—	8 (4.8%)
	3	5 (5.7%)	10 (10.9%)	25 (15.2%)
	2	6 (6.8%)	8 (8.7%)	102 (61.8%)
	1	77 (87.5%)	74 (80.4%)	30 (18.2%)
Progression through cervical canal ^c	4	—	—	13 (7.9%)
	3	3 (3.4%)	6 (6.5%)	31 (18.8%)
	2	2 (2.3%)	7 (7.6%)	112 (67.9%)
	1	83 (94.3%)	79 (85.9%)	9 (5.4%)
Evaluation of uterine cavity ^d	4	—	—	7 (4.2%)
	3	—	4 (4.3%)	21 (12.8%)
	2	1 (1.1%)	5 (5.4%)	119 (72.1)
	1	87 (98.9%)	83 (90.3%)	18 (10.9%)

^a Grade 1: no discomfort; grade 2: uncomfortable; grade 3: painful; grade 4: very painful. ^b Group A vs. Group B: $P < 0.05$; Group A vs. Group C: $P < 0.05$; Group B vs. Group C: NS.

^c Group A vs. Group B: NS; Group A vs. Group C: $P < 0.005$; Group B vs. Group C: $P < 0.005$.

^d Group A vs. Group B: NS; Group A vs. Group C: $P < 0.005$; Group B vs. Group C: $P < 0.005$.

[The comparisons between the three groups were obtained by matching the sum of patients that reported the scores 1 plus and 2 (no discomfort or uncomfortable) vs. the number with scores 3 or 4 of the scale using a Yates corrected χ^2 test.]

exam. This percentage was significantly lower ($P < 0.05$) than in group B and C (60.9 and 71.6%, respectively). Furthermore, in the group receiving prilocaine cream the intensity of the shoulder pain, recorded 10 min after the accomplishment of the exam, was significantly lower than in the other two groups ($P < 0.05$). These data could be related to the lubricating effect of the cream reducing the operative time and consequently the amount of CO₂ insufflated into the peritoneal cavity.

In conclusion, we can safely indicate from our data a beneficial effect of using a local anesthetic approach, at least in those hysteroscopies presumed to be for whatever reasons more cumbersome to perform, keeping in mind that these situations are anyway infrequent [2].

References

- [1] Lewis BV. Hysteroscopy for investigation of abnormal uterine bleeding. *J Reprod Med* 1987;32:577–582.
- [2] Hill NC, Broadbent JAM, Magos AL, Baumann R, Lookwood GM. Local anesthesia and cervical dilatation for outpatient diagnostic hysteroscopy. *Am J Obstet Gynecol* 1992;12:33–37.
- [3] Vercellini P, Colombo A, Mauro F, Oldani S, Bramante T, Crosignani PG. Paracervical anesthesia for outpatient hysteroscopy. *Fertil Steril* 1994;62:1083–1085.
- [4] Zupi E, Luciano AL, Valli E, Marconi D, Maneschi F, Romanini C. The use of topical anesthesia in diagnostic hysteroscopy and endometrial biopsy. *Fertil Steril* 1995;63:4141–5117.