



## Original Article

# Use of local anesthetic for the resolution of benign anorectal pathology in the Social Security Institute of Guatemala (IGSS)

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### ABSTRACT

**Introduction:** The use of regional anesthetic block has increased, along with the reduction of the use of spine anesthetic in this particular field of surgical activity. In the last decade ambulatory surgery and local anesthetic have lower surgical time, complications of the anesthetic itself, and hospital stay.

**Objective:** Presenting the results obtained with the use of local anesthetic and analgesic in the resolution of benign anorectal pathology.

**Methods:** A prospective, longitudinal, study, from January 2017 to December 2017, patients were classified according to surgical procedures performed using analgesic visual scale to determine the pain tolerance, during the procedure, 24 h later and in the 5th post operative day.

**Results:** 253 procedures were performed with 116 local analgesia, 116 were male (45.86%) years 137 female (54%), Milligan-Morgan hemorrhoidectomy with Ligasure and fistulotomy were the most frequently performed procedures 32% each, followed by biopsy 16%, left lateral esfinterotomy 13% and cutaneous appendix 12%. Females presented better pain tolerance than males patients (92 vs. 81), 68% referred good tolerance through the procedure.

**Conclusions:** 68% of all the patients obtained good pain tolerance through anal anesthetic block, females manifested better pain tolerance than males, in non-complicated anorectal pathology local block has shown to be safe and reproducible for the treatment of benign anorectal pathology in the Guatemalan Institute for Social Security.

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## Uso de anestésico local para resolução de patologia anorretal benigna no Instituto Guatemalteco de Seguridad Social

### R E S U M O

#### Palavras-chave:

Analgesia  
Bloqueio local  
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**Introdução:** O uso de bloqueio anestésico regional aumentou ao mesmo tempo em que diminuiu o uso do anestésico espinhal nesse campo específico da atividade cirúrgica. Na última década, a cirurgia ambulatorial e o anestésico local apresentaram um tempo cirúrgico menor, menos complicações associadas ao próprio anestésico e redução da permanência hospitalar.

**Objetivo:** Apresentar os resultados obtidos com o uso de anestésico local e analgésico na resolução da patologia anorretal benigna.

**Métodos:** Estudo prospectivo, longitudinal, realizado no período de janeiro a dezembro de 2017. Com o uso de uma escala visual analógica, os pacientes foram classificados para determinar a tolerância à dor durante o procedimento, 24 horas após a cirurgia e no quinto dia de pós-operatório.

**Resultados:** No total, 253 procedimentos foram realizados com 116 analgesias locais; 116 pacientes eram do sexo masculino (45,86%) e 137 do sexo feminino (54%). A técnica de Milligan-Morgan para hemorroidectomia com ligadura e a fistulotomia foram os procedimentos realizados com mais frequência (32% cada), seguidos de biópsia (16%), esfincterotomia lateral esquerda (13%) e apêndice cutâneo (12%). As mulheres apresentaram melhor tolerância à dor que os homens (92 vs. 81), e 68% apresentaram boa tolerância durante o procedimento.

**Conclusões:** De todos os pacientes, 68% apresentaram boa tolerância à dor com o uso de bloqueio anestésico por via retal; as mulheres manifestaram melhor tolerância à dor que os homens. Na patologia anorretal não complicada, o bloqueio local mostrou ser seguro e reprodutível para o tratamento da patologia anorretal benigna no Instituto Guatemalteco de Seguridad Social.

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## Introduction

Benign anorectal pathologies are one of the main consultations in the emergency services, some can be treated medically, but most need surgical intervention depending on time of evolutions, size, location and answer to medical treatment.<sup>1-3</sup>

In the last decade ambulatory surgery and local anesthetic have diminished surgical time, complications of anesthetic itself, hospital stay and stress generated by going under general anesthetic, Martin and cols, on their publication, concluded: "in 18 years of experience, 70% of the anal canal surgery can basically made in ambulatory patients using local anesthetic or posterior perineal block with a low range or complications of 0.5%.

Spinal anesthetic for minor rectal surgeries was the most used option for surgeons up until a few decades ago. However, disadvantages such as post-spinal headache, postoperative urinary retention, and the less likely risk of nervous injury. Regional anesthetic block has been an alternative. This local anesthetic technique was used by a few surgeons in the past. In our practice regional anesthetic block is exclusively reserved for low complexity procedures for benign pathology.<sup>4-6</sup>

The present's results were obtained in the use of local anesthetic block for benign anal pathology in the Guatemalan

Institute for Social Security, in the patients seen in the Colon and Rectum unit in 2007 (see [Tables 1 and 2](#)).

## Justification

In the last decades with the use of local anesthetics multiple low-complexity procedures have been made, which reflects an improve in the patients' evolution and hospital costs by reducing the hospital stay in the Social Security Institute of Guatemala, this type of regional anesthetic have been used however there wasn't any institutional study that proves the safety and efficacy of the use of local anesthetic for benign anal pathology.

## Objective

Present the results obtained through one year, with the use of local anesthetic in the surgical treatment of anorectal pathology.

## Methods and materials

253 patients were documented with benign anorectal pathology uncomplicated, operated in the coloproctology unit of the Social Security Institute of Guatemala. In the period between January to December 2017, that fill the inclusion criteria.

**Table 1 – Performed procedures distribution.**

Procedure	Male	Female	Percentage
Hemorrhoidectomy	32	49	32
Cutaneous appendix resection	12	16	12
Fistulotomy	39	32	32
Biopsy	20	21	16
Esfinterotomy	13	19	13
Total	116 (45.84%)	137 (54%)	253 (100%)

Note: Data from the recollection instrument designed for this study, using the patient's chart (2017).

**Table 2 – Pain tolerance according Visual AnalogicalS (VAS).**

Pain tolerance	Female	Male	Percentage
Excellent	21	16	6
Good	92	81	68
Bad	17	16	14
Badly	4	6	2
Total	134 (52%)	119 (48%)	253 (100%)

Note: Data from the recollection instrument designed for this study, using the patient's chart (2017).

### Inclusion criteria

Patients of all ages surgically intervened who presented a low-complexity anorectal disease: hemorrhoids, anal flap resection, previous anorectal disease without surgery, no contraindication for local anesthetic, patients who agreed on the procedure and signed an informed consent.

### Exclusion criteria

Patients with contraindication for using local anesthetic, suspicion of malignant or complex disease, patients who disagree and didn't signed the consent.

The collecting data instrument for documenting and observing the patient, who undergo surgery, had 3 parts: first identification data from the patient, including affiliation number, age, sex, diagnose. In the second part the anesthetic used were documented, surgical risk, and the last part refers to pain evaluation, intensity through visual analogical scale (VAS). All results were expressed descriptively in percentages tables.

### Technique

A mix between 2% lidocaine and 0.050% bupivacaine was used, in a 70–30 proportion. Perianal skin is infiltrated with 10cc. A deeper shot is administrated at 3, 6, 9 and 12 o'clock. The infiltration starts at 6 o'clock with 10cc, followed by 5cc at 5 and 7. The needle pulls back and 5cc are injected at 3 o'clock and 5cc more at 2 and 4. Same procedure is repeated at 9 and finally at 12 o'clock. All infiltrations, except the one on the perineal skin, are performed directed by the left hand index finger inside the rectum. After been discharged, patients have postoperative care indications and naproxen with esomeprazole is given every 12 h for 3 days.<sup>7,8</sup>

### Results

253 procedures were performed with 116 local analgesia, 116 were male (45.86%) year 137 female (54%), Milligan-Morgan hemorrhoidectomy with Ligasure and fistulotomy were the most frequently performed procedures 32% each, followed by biopsy 16%, left lateral esfinterotomy 13% and cutaneous appendix 12%.

Pain tolerance was evaluated through a visual analogical scale for pain transoperatively, one day postop and 5th day postop. This scale considerate: Excellent tolerance with 0–1 point, good 2–3 points, regular 4–5, bad 6–7 very bad tolerance 8–10 points.

Females' patients presented better pain tolerance than males 92% vs. 81.68%.

### Conflicts of interest

The authors declare no conflicts of interest.

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