Local perianal anesthetic infiltration is safe and effective for minor anorectal surgery

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Haemorrhoidectomy, anal fistula surgery and lateral sphincterotomy make up significant portion of colorectal surgical practice. There is a choice of anesthesia for these operations from general through spinal or caudal to local perianal blocks. In most practices general or regional (spinal or caudal) anesthesia is preferred. For ten years we have routinely been using local perianal anesthetic infiltration for anal or perianal surgery.

The aim of the study was to evaluate the safety and efficacy of local perianal anesthetic infiltration for anal and perianal operations.

Patients and methods. All patients, who were to undergo surgery for hemorrhoids, anal fissure, anal or low rectal polyps were informed about the technique of the procedure. All the patients were started on preoperative lactulose, no bowel preparation was used.

No intravenous or oral sedation was used. No anesthesia team was present in the operating room. Electrocardiography, pulse oxymetry and blood pressure monitor was used in every case. After informed consent was signed, patients were placed in the prone jack-knife position in the operating room. Technique of anesthesia used was from Lohsiriwat et al [1]. Three consecutive injections were performed on each side of the anus, with injection points being anteriorly 2.5 cm from the dentate line on the skin and 1.5 cm from the midline. (Figure 1). Injections were performed in three directions with one skin puncture, injecting 7 ml of anesthetic mixture on both sides of the anus (Figures 2 and 3). Skin infiltration was avoided. Injections were performed after aspiration confirmed that needle was not in the lumen of the vessel. Anesthesia was induced with 42 ml of mixture containing 0.125% bupivacaine and 0.5% lidocaine, thus performing posterior perineal block.

Surgery was performed as planned. Closed haemorrhoidectomy was used for hemorrhoids, closed lateral internal sphincterotomy was performed for medically untreatable anal fissure, fistulotomy was performed for low anal fistulas, anal polyps or large skin tags were removed. No wound or anal packing was used.

The patient was discharged on the day of operation if the pain was under control with oral pain medications, he or she was able to void and if the social circumstances were favourable (support at home, no need to travel far after the operation).

All patients were registered into the prospectively maintained database, bioethics committee approved the database. All the patients were followed for 30 days and all postoperative complications over 30 day period were registered.

For the present study the database as well as all patients’ case logs were reviewed, looking for data on postoperative course.

Results. From July 2002 to July 2012 1026 consecutive patients underwent operations for anorectal diseases under local perianal anesthetic infiltration technique. No general and/or regional anesthesia was performed in any of the patients, full intraoperative analgesia was achieved after performing perianal anesthetic infiltration; no involvement of anesthesia team was necessary in any of the cases.

Operations performed are presented in figure 4.

Tailored hemorrhoidectomy was used in our patients: only cushions, which were symptomatic were removed, with bipolar coagulation of internal hemorrhoids in remaining untreated locations (Figure 5). In 100 patients (12 %) simultaneous operations were performed: lateral internal sphincterotomy for concomitant anal fissure in 72; anal polypectomy in 23; fistulotomy for low fistula in 5 patients.

Closed lateral internal sphincterotomy was performed for chronic anal fissure in 162 patients. Internal anal sphincter was incised to the level of the dentate line. In 25 (15.4 %) patients simultaneous procedures were performed: in 11 patients internal hemorrhoids were coagulated with bipolar coagulation or ligated; 7 anal polypectomies were performed; 7 fistulotomies for low anal fistulas were performed.

15 patients underwent fistulotomy for anal fistula. Only patients, who had clearly simple fistulas with no suspicion of upward extention were treated under posterior perineal block anesthesia. Fistulotomy with laying open of the fistula track was performed.

12 patients underwent anal polypectomy for large anal polyps. 1 patient underwent excision of the anal condylomata and 1 patient underwent transanal polypectomy for low rectal adenoma of 3 cm in size with it’s lower border on the dentate line. Radical excision of the adenoma was confirmed by histological examination and the patient required no further treatment.

Mean hospital stay was 1.8 days (1-18 days). 753 patients underwent a day-case procedure.

Complications were observed in 14 (1.4 %) patients. Urinary retention occured in 5 (0.5 %) patients after the operation, requiring placement of urinary catheter. 6 cases of bleeding occurred after hemorrhoidectomy (0.7%) and 1 (0.6%) after lateral internal sphincterotomy: in two cases the bleeding occurred during first two hours after the operation and it was stopped with oversewing of the bleeding spot without any additional anesthesia. In other four patients the patients had to be repeatedly anesthesized with posterior perineal block and underwent surgical hemostasis.

In two patients (0.2%) perianal abscess developed: in one after hemorrhoidectomy and in one after sphincterotomy. The abscesses occurred within two weeks after the operation and manifested with fever and increasing perianal pain. Abscesses required surgical drainage and resolved completely.

Conclusion: perianal anesthetic infiltration anesthesia is safe and effective for minor anorectal surgery avoiding involvement of anesthesia team.

References: