

Injection Treatment of Piles

Pages with reference to book, From 318 To 319

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It can be observed on proctoscopy that the normal anal canal protrudes into the lumen at the right anterior, right posterior and left lateral positions. The so called 'anal cushions' at these positions are produced as the result of an anatomical dilatation of submucous veins direct through arterioles and supported by muscle fibres derived from the musculus submucosae ani (Fig.).

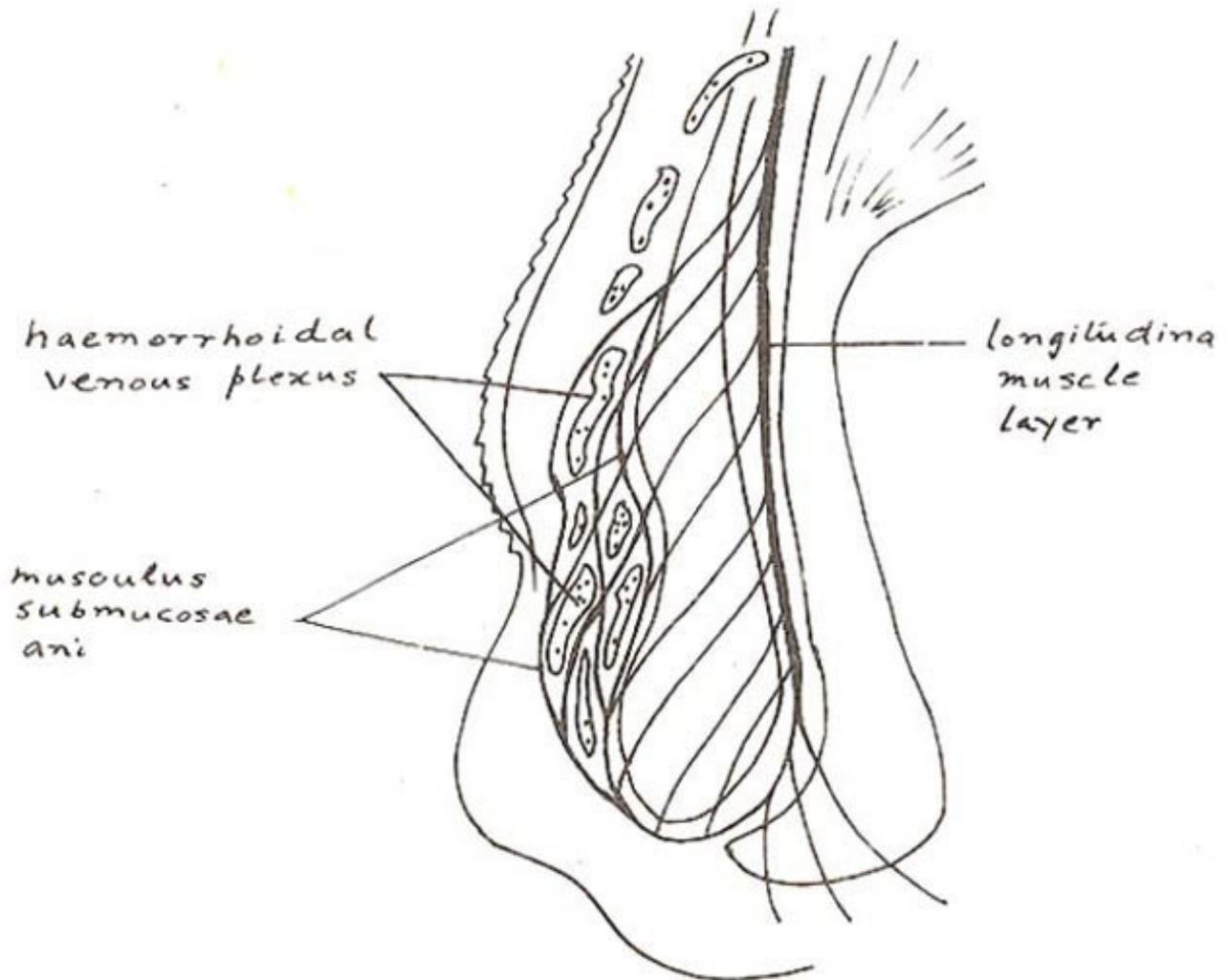


Fig. 1. The Musculus submucosae ANI supporting the Haemorrhoidal venous plexus.

It would appear that the main purpose of the cushions is to effect a water tight closure of the anal canal. Habitual straining as at stools, damages the supporting tissues, leading to a downward displacement of the cushions. Bleeding, which is bright red, comes from congested mucosal capillaries and is often precipitated by minor trauma. With the development of these two features, prolapse and bleeding anal cushions qualify as piles and are in need of treatment.

Secondary piles may develop in between the primary ones. Usually, piles are covered with light

columnar epithelium in their proximal extent and dark squamous epithelium distally (internoexternal piles). They may however, be chiefly restricted to the columnar zone (internal piles).

Prolapse is not discernable in first degree piles, which manifest as rectal bleeding. Second degree piles prolapse on straining but reduce spontaneously or at least can be manipulated back. Third degree piles are continuously prolapsed.

Aim of Injection Treatment

In the initial stages of piles when prolapse is not prominent and bleeding is the predominant symptom (first and early second degree), conservative remedies designed to soften the stool and increase its bulk, may be successful. If these measures fail, definitive treatment by injection of a sclerosant in the submucosa of the anal canal, is indicated. As a rule 3-S of 5% phenol in almond oil are injected submucosally in each of the three primary sites just above the actual pile bearing area (close to the anorectal ring). The sclerosant excites an inflammatory reaction which gives rise to healing by fibrosis in approximately three weeks time. The fibrosis strangles the vessels and causes contracture of the pile masses consequently the main symptoms bleeding and prolapse, are dramatically ameliorated.

Intravascular injection of the sclerosant cannot be achieved deliberately hence intravascular thrombosis does not commonly occur.

Contraindications for injection treatment

i. Understandably sclerosant injection is less satisfactory in late second and third degree piles when prolapse predominates; haemorrhoidectomy is preferable. However, injections may produce temporary relief in patients with advanced piles considered unfit for surgery in the presence of incipient cardiac failure. Injections may likewise help to tide over severe symptoms during pregnancy. As a rule significant spontaneous relief follows parturition.

ii. The association of other anal pathologies, notably chronic anal fissure and external skin tags weighs in favour of surgical treatment. Proctoscopy may be impossible in the presence of a painful fissure and external tags are unaffected by injections. Indeed care should be taken to ensure that injections are not made too low near the squamous zone for fear of causing excruciating pain.

iii. Strangulation, thrombosis and ulceration of piles constitute absolute contraindications for injection treatment. Spontaneous regression may occur following thrombosis but if the piles persist, sclerosant injection may be tried three weeks after an 'attack of piles'.

It is cardinal sin to miss an associated rectal carcinoma. The tendency to regard piles as the cause of rectal bleeding in such cases must be overcome. In fact there is much to be said for sigmoidoscopy in all adult patients who present with rectal bleeding for the first time. A barium enema may be arranged when necessary. It is only when a more sinister pathology has been eliminated in this way, that bleeding may be attributed to piles.

Method of Injection

Bowel preparation

No preparation is necessary if the anal canal is reasonably clean. If however, the canal is loaded, the patient is asked to come back on another occasion after evacuating his bowels. A mild aperient such as magnesium hydroxide or bisacodyl tablets may be prescribed. A meticulously clean anal canal is not a prerequisite and a small amount of faeces may be cleaned with a swab at the end of a long forceps.

Additionally a gauze piece may be employed to pack the rectum off from the anal canal. On the other hand it is a distinct disadvantage to produce a watery faecal deluge as the result of ineffectual purgation.

Laying out the trolley

A large proctoscopy approximately 7 cms long and 2.5 cms in its narrowest diameter is selected.

Although a self-illuminating one is preferable, light from an angle-poise lamp or a sharply focusing hand held torch is adequate. A Gabriel syringe is especially designed for piles injection. The two rings on the barrel and one on the piston ensure a firm grip. A purpose-made needle is shouldered two cms. from its tip, in order to control the depth of penetration. However, it is just as easy to get accustomed to a disposable 10 cc syringe with a luer lock and a No. 18 gauge disposable spinal needle.

A narrower gauged prevents free flow of the oily solution, a wider one tends to produce a large mucosal defect allowing the injected solution to escape. A long narrow dissecting forceps and guaze pieces should be kept handy for cleaning up and in order to stem the occasional brisk bleed from an injection site. The solution itself, 5% phenol in almond oil, should be well mixed by shaking and placed in a sterile bowl for direct withdrawal into the syringe. It is practical to load two 10 cc syringes in readiness.

Positioning the Patient

Either the left lateral or the knee-chest position may be used. I prefer the latter. Correctly executed the knee-chest position ensures that the pelvis is empty of its small bowel content, rendering the anal canal roomier. The disadvantage of this position is that it is a little undignified and that it could cause cardio-respiratory embarrassment in the compromised patient.

Injecting the sclerosant

3-5 cc of well mixed sclerosant are deposited in the submucosa of the anal canal in each of the three primary sites, above the actual pile bearing area close to the ano-rectal ring (identifiable posteriorly). It is helpful to tilt the proctoscope towards the site of injection. As the injection is made the overlying mucosa distends visibly and there is accompanying blanching of the mucosal vascular striations. If this does not occur, it may be assumed that the needle tip is too deep and needs to be pulled out a bit. If on the other hand the mucosa turns dead white with the injection, the needle tip is too superficial and necrosis and ulceration are liable to occur. There is inevitable escape of some sclerosant on withdrawing the needle. No conscious effort need be made to stem this. A guaze piece is firmly applied if there is brisk bleeding from an injection site.

After Care

It is well to warn the patient of perineal discomfort (a feeling of heaviness) that may persist for 24 hours after injection as well as of some blood with the stools the next day. As a rule, amelioration of symptoms is dramatic and serious complications are uncommon. Occasionally, ulceration may occur at the site of injection and rarely might this result in profuse bleeding (secondary haemorrhage) requiring hospitalisation and transfusion.

Reassessment

A period of three weeks is allowed to elapse before the result of the injection is assessed. If bleeding persists re-injection may be undertaken at this stage. The sites of previous injection are usually indurated (at times mimicking carcinoma), but intervening areas are still pliable and will readily accept further injections. Generally, however the first set of injections is sufficient and lasting cure may be expected in early piles. Late recurrence of piles is again amenable to sclerotherapy although with each successive recurrence the amount of sclerosant that can be conveniently injected, diminishes.