Blomberg Injection Technique

The injections were given according to manual diagnostic findings. Among the patients in the subgroup who did not respond satisfactorily to manual therapy and where no treatable dysfunctions were found, further treatment with steroid injections was considered. Lederspan® (triamcinolone hexacetonide), often in combination with 'needling' and local anesthetics (Citanest® 0.1 percent, prilocaine hydrochloride) is used.

Important injection sites are painful insertions on the greater trochanter of the piriform muscle and painful parasacrococcygeal structures. This latter term is preferred instead the more common term 'paracoccygeal', since that term is somewhat misleading. The reason being that the injection site in question is most frequently located more cranially in the area of the apex of the sacrum and near the cranial part of the coccyx, not only adjacent to the os coccyx. Cyriax stated that the sacrotuberous and sacrospinal ligaments were common pain focuses , but it is obvious that also contractile tissues are involved.

The region in question constitutes the origins for the sacrotuberous and sacrospinal ligaments indeed, but also for musculus coccygeus and musculus levator ani pars iliaca. This area is, to our knowledge, described as an injection site for the first time by the late Sven-Otto Myrin in 1972 and the bimanual injection technique seems to have been developed by him in the sixties—he taught the technique to Stefan Blomberg in 1985. Originally, the patient was lying on his/her side, but prone positioning of the patient seems more functional. The needle is usually entered through the skin a couple of centimeters (cm) below crena ani and one cm laterally of the midline. After having reached bone-contact, the needle is further penetrated laterally/caudally in the tissues. During this process, the tip of the needle is palpated by the other hand's gloved index finger, which is inserted in the patients' rectum. One milliliter (ml) of steroid and 5 to 10 ml of local anesthetic is injected on the affected side (bilateral irritation is considerably more common than unilateral pain). The injected fluid should be spread in the area while successively re-injecting the needle in a sun-fan-shaped pattern. Note that the skin is penetrated only once. The most painful parts of the area are injected, which frequently means the entire area as described above, but not uncommonly only the tissue adjacent to the inferior lateral angle of the apex sacra (ILEA) or the lateral and somewhat more distant parts. The distance between the index finger and the tip of the needle is probably a few millimeters (mm). Quick oscillations of the syringe and the needle with minimal amplitude make it easier to palpate the tip of the needle per rectum. The bimanual injection technique seems necessary in order to enable the injection of the steroid deeply enough to affect the symptomatic tissue. To simplify the maneuver, the medial/upper part of the buttock is pushed away from the midline with the thumb of the hand palpating the rectum. In this way the distance from the surface of the skin to the bone is rarely more than one cm and the 0.7 mm x 50 mm needle is always enough.

In Stefan Blomberg's clinic, in which five different physicians altogether have provided at least 10000 parasacrococcygeal injections since 1985, no complications have ever been observed. After the injection, the parasacrococcygeal structures were also stretched per rectum ad modum Midttun and Bojsen-Möller , a method that can be used as an alternative to the injection described above. However, parasacrococcygeal stretching seems to be less effective and frequently, according to experience, has to be repeated 4-5 times. Tissue irritation in this region seems to be a common cause of pseudoradicular pain in the leg, frequently extending all the way down to the foot and the clinical picture seems repeatedly to be misinterpreted as true radicular pain.