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Local Steroid Injection In The Treatment Of Refractory Coccydynia

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ABSTRACT
Coccydynia or coccygeal pain is a medical condition although rare which manifests as pain and tenderness over the coocygeal region. These patients have mostly difficulty sitting and the symptoms are excarbratted by pressure. The condition typically responds to conservative management like non-steroidal antinflammatory drugs (NSAIDS) , sitz baths, soft cushions, rectal manipulation Our study included 30 patients with coccygeal pain refractory to other means of treatment. We used 40 ml triamcinolone along with 2ml of 1% lidocaine introduced locally. The outcome was studied by ability of the patient to sit, by eliciting the local tenderness and the VAS score. We concluded that injecting steroid injection in patients with refractory coccydynia is a good alternative option with minimal complications.

Keywords:*coccydynia, local steroid, lidocaine*

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I. Introduction

Coccydynia refers to the condition which manifests as pain and tenderness in the sacrococcygeal region and may radiate to back and buttocks. The sacral nerve roots and the terminal end of the sympathetic chain called the ganglion impar which carries visceral afferents from perineum, vulva, vagina, and anus has a close anatomical relationship with the coccyx[1].

The mechanism of injury in most cases includes trauma (fractures sprain, childbirth , horseback riding)[2]. Other causes include congenital disorders, tumors, coccygeal intervertebral disc pathology, pericoccygeal soft tissue inflammation and coccygeal nerve entrapment[3]. Coccydynia affects females more often than males. The location of coccyx makes it more susceptible to injury.

The diagnosis of coccydynia is based on patient history, clinical symptoms and physical examination. The symptoms are typically provoked by sitting. On palpation there is tenderness, hypermobility and patient complaints of pain on rectal examination. Radiological studies help in making this diagnosis easier through examination of the shape and movement of the coccyx with lateral sacral radiographs and dynamic x- rays respectively[4,5] and also help in excluding the presence of fractures, tumoral or infectious lesions[6].

The management of coccydynia is often conservative like NSAIDS, hot baths, ring cushions, intrarectal massage, manipulation. Patients not responding to conservative treatment, coccygectomy is often recommended[7.] Local steroid injection in the coccyx is yet another method of treatment for patients with chronic coccygeal pain[8].

II. Aims And Objectives

To evaluate the effectiveness of triamcinolone acetonide along with lidocaine injection in the treatment of refractory coccydynia.

III. Materials And Methods

Our study was a prospective study conducted on 30 patients at Department of Orthopaedics Bone and Joint Hospital GMC Srinagar jammu and Kashmir, India between April, 2019 and Sept, 2019 with complaints of coccydynia. Written and Informed consent was taken from all patients before proceeding for the procedure.

INCLUSION CRITERIA

Patients aged between 20- 50 yrs.
Both male and female patients.
Patients with refractory coccydynia.

EXCLUSION CRITERIA
Uncontrolled diabetes mellitus
Local and systemic infection
Bleeding disorder
Known psychiatric illness
Pregnancy
Patients who have received injection within past 3 months
Coccydynia secondary to tumours condition

INTERVENTION

The patient was positioned in lateral decibutes position and hips were fully flexed. After proper draping of the area, the most tender point on the coccyx was palpated and and 22 guage needle was inserted while placing the index finger in the rectum to facilitate the proper positioning of the needle. Now the needle is properly placed 40 ml of triamcinolone acetonide along with 1% of 2 ml lidociane is injected.

IV. Results And Observations

Our study included total of 30 patients out of which 19 were females and 11 males. The mean age was 32.33 yrs. Most of the patients(25) had history of trauma before onset of symptoms while 5 patients had no history of trauma. Mean visual analogue score (VAS) before treatment was 8.32(range 6-10). The mean duration of illness was 3. 72 months. The most common affected age group was between 41-50 years. The VAS score significantly decreased after injection and was found to be 4.12 at 1 week and 2. 72 at 6 weeks. Also the patients ability to sit improved significantly over time and decrease in coccygeal tenderness was noted. Two of our patients experienced vasovagal syncope during the procedure and another 2 patients had no significant relief by the first injection so they required repeat injection at 4 weeks.

TABLE 1:AGE DISTRIBUTION

Age (years)	No. of cases	Percentage
20-30	6	20%
30-40	11	36.7%
40-50	13	43.3%

TABLE 2: SEX DISTRIBUTION

Sex	No. of patients	Percentage
Female	19	63.3%
Male	11	36.7%

TABLE 3: Visual Analogue Score

Pre .injection VAS	No. of patients	Post. Injection VAS	No. of patients
5-6	6	1-2	7
7-8	11	3-4	18
9-10	13	5-6	5

V. Discussion

Conservative management of coccydynia remains the gold standard method of treatment. However corticosteroid injections over the past years have been shown to be an effective modality of treatment in patients not responding to conservative methods of treatment. It has been observed that patients with coccydynia show inflammatory changes in the area of the coccyx hence local corticosteroids are effective modality of treatment[9]. Intrarectal manipulation through physical therapy has not shown to be significantly effective in the long term management of coccydynia[10].

Buttaciet al[11] in their study on 20 patients over a period of 6 months reported an average decrease in pain at a rate of 20% to 75%. They observed that the effect decreased over a period of time and repeat injections were necessary. Another study used fluoroscopically guided coccygeal injection[12]. We used local steroid imjection by detecting the most tender point and our results were comparitively same. Wray et al[13]compared local injection with manipulation after local injection and found better results in patients receiving steroid injections only.

Our study is limited by a number of factors like small number of patients, absence of a comparison group and patients were followed up for a small period of time.

VI. Conclusion

We conclude that local steroid is a effective modality of treatment for patients with refractory coccydynia. It is better alternative with better results and minimal complications.

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