

Review on the management of chronic traumatic coccydynia

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Abstract

The purpose of this study is to evaluate the conservative treatment of chronic traumatic coccydynia by intrarectal manipulation of the coccyx and massage of the coccygeal Muscles. Case series study was done in the department of Neurosurgery, Ibn-Sina teaching hospital in Mosul, from March 2000-August 2006. Sixty five patients (sixty females, five males) with chronic traumatic coccydynia treated by intra rectal manipulation of the coccyx and massage of the coccygeal muscles. Those with failure of this method treated by coccydectomy. Sixty five patients underwent intra rectal manipulation of the coccyx. Sixty patients responded to conservative treatment. Five patients underwent coccydectomy, three of them did well the remaining two did not respond even to surgical treatment. Conservative treatment for chronic traumatic coccydynia is the treatment of choice. Surgical treatment is required only to those patients with failure of conservative treatment.

Key words: Coccydynia, Coccydectomy

Introduction

Coccydynia is a general term used to describe pain in the coccygeal region due to different causes. In clinical practice, coccydynia is restricted to clinical entity in which persistent pain continues for many weeks or months after a local injury. 1. Women seem to be affected more commonly than men (15/3) 2. It may occur in women during a difficult delivery as the coccyx is joined to the sacrum by cartilage therefore it can bend to some extent during child birth 3,4 .

The patients suffer from pain in the coccygeal region specially during sitting position .The pain is also aggravated by passing bowel motion. This condition becomes chronic because the act of sitting and defecation

continually strain the already injured ligaments
5. Rectal examination reveals tenderness at the lower coccygeal segment.

X-ray of the coccyx may show forward angulation of the lower coccygeal segment or a calus at the site of the old fracture of the coccygeal segment. The treatment is usually conservative by using analgesics to abolish the pain and intrarectal manipulation of the lower coccygeal segment, some time with a massage to the coccygeal muscles. The reduction is usually stable which is fortunate. The patient is allowed to resume normal activity, but is advised to use a rubber ring or Sorbo cushion when sitting 2. Coccydynia may be treated by injecting a local anaesthetic with steroid in to the ganglion impar (ganglion of Walter) 6. In resistant cases with failure of the conservative

ways of the treatment, coccydectomy is performed by surgical excision of the coccyx.

Patients and Methods

This study performed on 65 patients with chronic traumatic coccydynia for a period from March 2000 to August 2006. Sixty patients were females and only 5 patients were males. All those patients had history of falling on their buttocks and they suffered from coccygeal pain specially on sitting and this complain for several months before presentation. All those patients had X-rays of the coccyx and all of them had their X-rays foreword displacement of the lower coccygeal segments. Those patients were treated by introducing a gloved index finger in to the rectum while they are taking left lateral position with flexion of both hips and knees. Then the lower coccygeal segment is pushed backward and slightly downward by the

index finger with the other hand is supporting the back of the coccygeal region externally. Then a massage of the coccygeal muscles is done. At first, the patient feels pain which is gradually decreasing by continuing this procedure. This procedure is stopped as the patient becomes pain free. The massage continue for tow to four minutes. If the pain is not relief by this procedure or the pain becomes more severe at one session, then the session may be repeated after about one week. After the relief of the pain, the patient is advised to use a rubber cushion during sitting for few weeks. Those patients who did not respond to this form of treatment were subjected to surgical excision of the coccyx by coccydectomy. The mean time of follow up of the patients is 30 months. In this study we did not use injection therapy. The steps of the management are shown in figure (1).

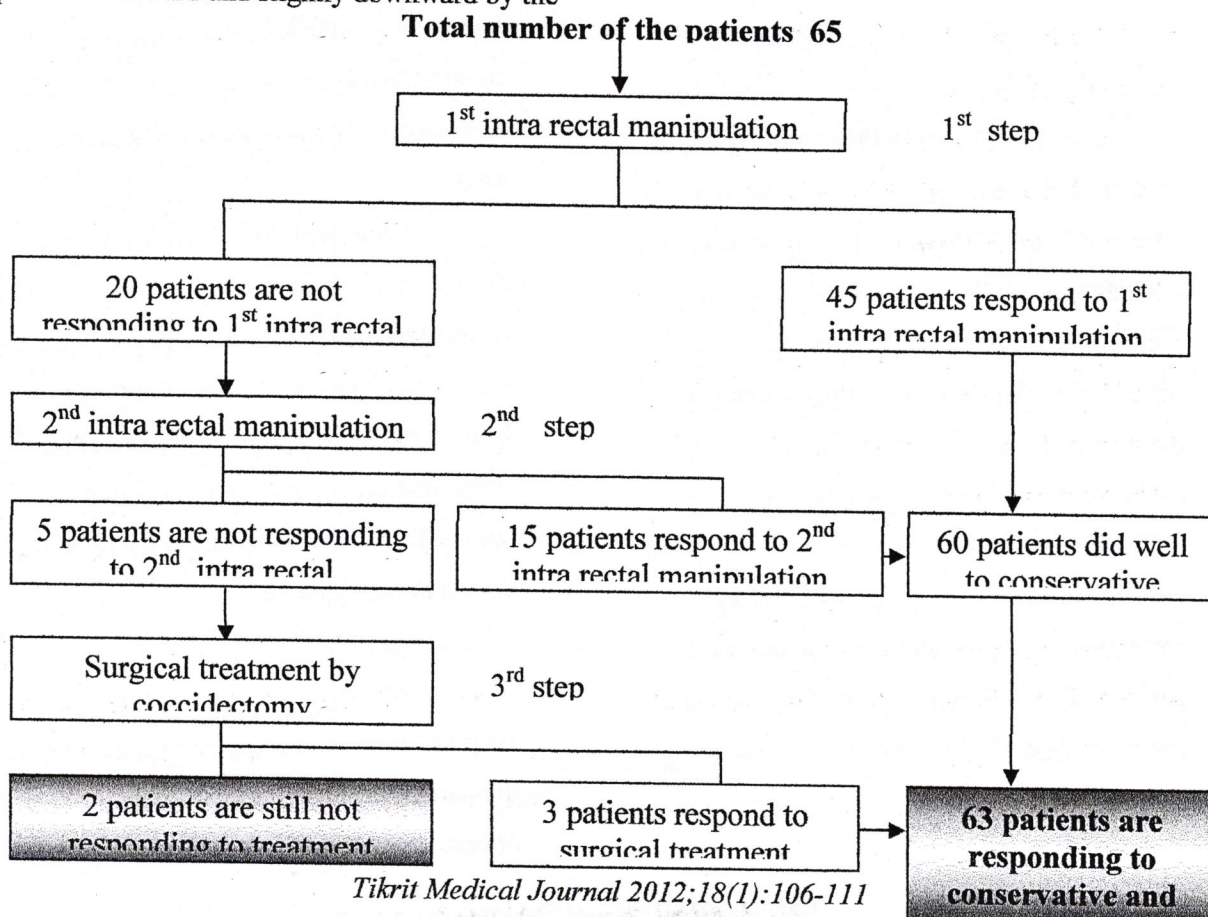


Figure (1) • The steps of management

Results

This study included 65 patients. Sixty patients (92%) were females and 5 patients (8%) were males. The age of the sampled patients ranged from 20-70 years. The age distribution of the patients is shown in figures (2) & (3)

Forty-five patients (69%) responded to only one session of intrarectal manipulation of the coccyx. The remaining 20 patients (31%) underwent second session of rectal massage. Of those 20 patients who underwent second session, 15 patients (75%) got relief of pain, while the remaining 5 patients (25%) did not respond to this form of the treatment.

Accordingly, 60 patients (92%) responded to this form of the treatment and 5 patients (8%) did not (3 females and 2 males). In those 5 patients who did not respond to conservative management, surgical treatment by coccydectomy is performed. Those patients in whom coccydectomy is performed only 3 patients (2 females and 1 male) that is to say 60% did well and the other 2 patients (40%) did not respond to coccydectomy (1 male and 1 female) and they are still suffering from pain. The summary of the results is shown in figure (4).

Discussion

According to the results of this study, coccydynia occurs more frequently in females. This is probably due to child birth in females 3,4. It has been noticed that the frequency of coccydynia is increasing with the increase of age, and according to this study the peak age group is between 50-59 year and this may be attributed to the increase of osteoporosis by aging process. This is more obvious in females with post menopausal osteoporosis in whom the bones are more fragile, in addition to that with the increase of the age the person is more liable to have

falling down and this may lead to increase the frequency of having coccydynia.

Coccydynia is primarily treated conservatively when it is possible 7,8,9,10. From the results of this study, conservative treatment by rectal reduction of the coccyx and massage of the coccygeal muscles is effective method in the treatment of coccydynia as 92% of the patients did well. Furthermore, this form of treatment is easy to perform, it does not require to expose the patient to the hazard of surgery, general anesthesia and post operative infection which may occur after coccydectomy. Furthermore the majority of the patients are from middle or old age groups with the risk of cardiac and pulmonary diseases which may relatively contraindicates general anaesthesia. In some studies the success rate of intrarectal manipulation of the coccyx is around 25% 11, while in others it is about 85% 12. In this study the successful rate of intrarectal manipulation of the coccyx is 92%.

Surgical treatment by coccydectomy must be kept as the last line for the treatment of coccydynia. It can offer reasonable results for those patients with failure of the conservative treatment 7,9,10. According to some studies, coccydectomy remains the successful treatment for majority of severely disabled patients with coccydynia 13,14.

Other studies revealed that coccydectomy was required in almost 20% of the patients 12. According to other studies, operative treatment is controversial and the

results are confusing 8. In this study surgery was needed in 5 patients (8%). Three of those 5 patients who underwent surgery did well, that is to say 60% and the remaining 2 patients (40%) still suffering. It has been mentioned that coccydynia seems to be associated with neurotic personality, neither injection of the fracture site with local anaesthetics and steroids nor excision of the coccyx reliably relieves the pain 15. This may explain why those two patients (from 5 patients who underwent surgical treatment) did not respond to even surgical treatment.

Conclusion

1. Coccydynia occurs more in females.
2. This condition is increasing with the increase of the age.
3. Conservative treatment is the treatment of choice by using intrarectal manipulation of the coccyx and massage of the coccygeal muscles.
4. Surgery must be kept as the last line for the treatment of selected cases with coccydynia.

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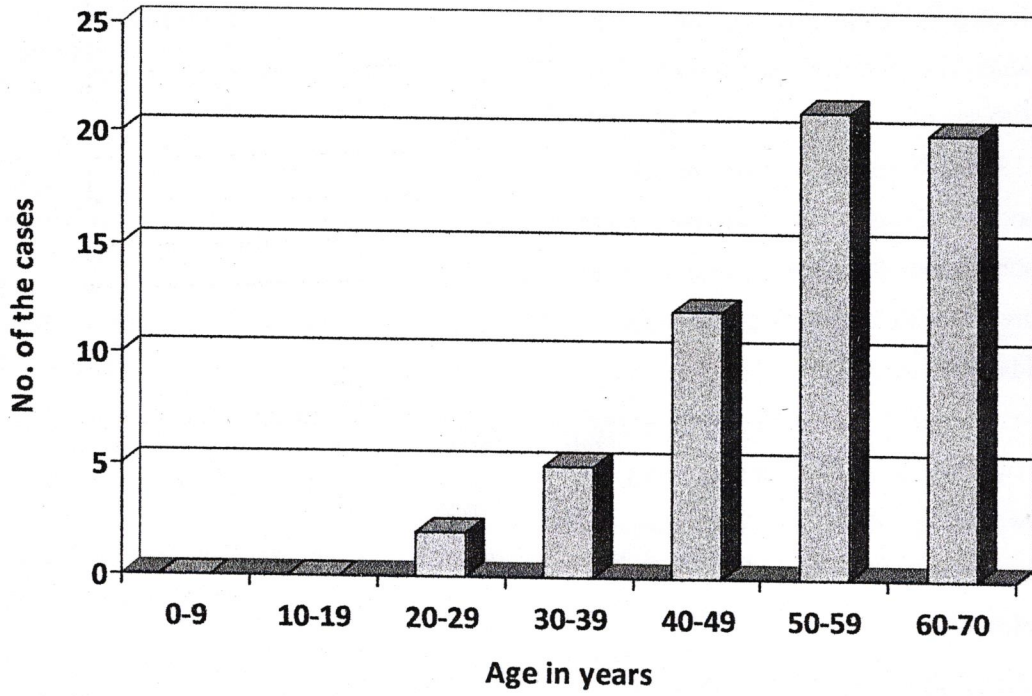


Figure (2): The age distribution of the sampled female patients

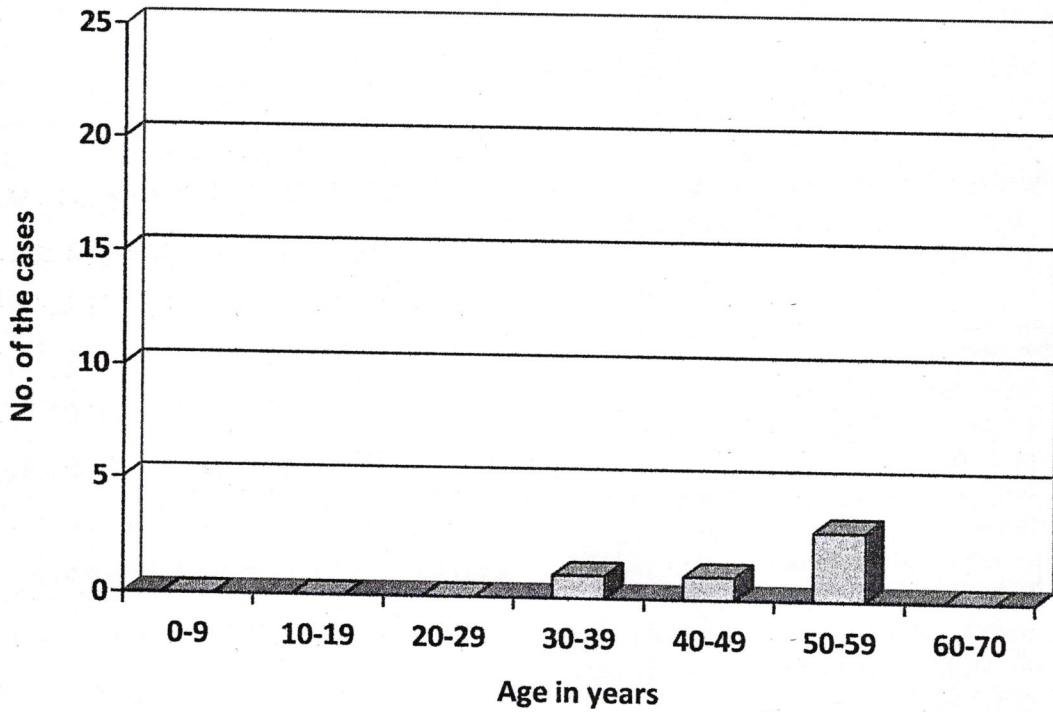


Figure (3): The age distribution of the sampled male patients

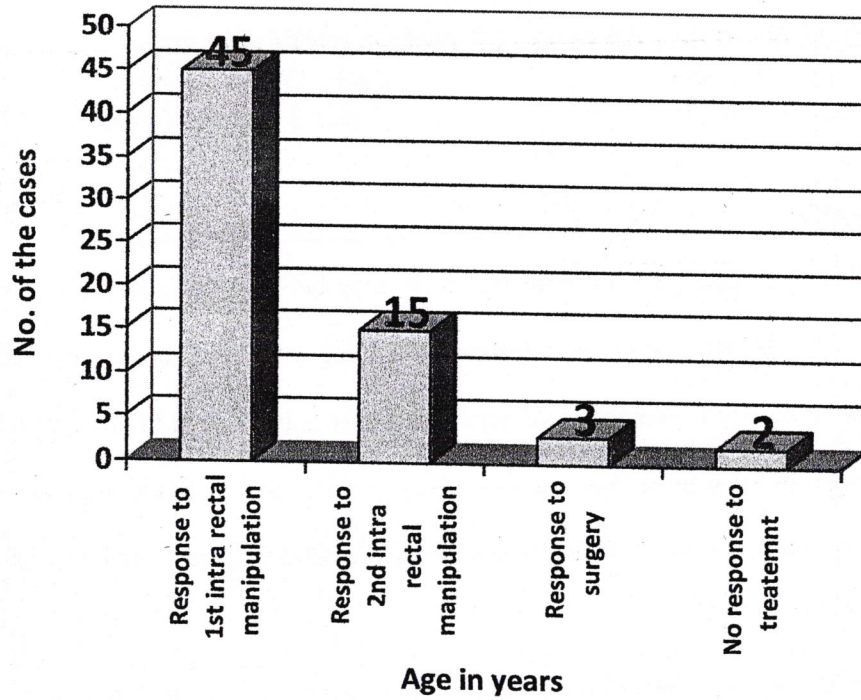


Figure (4): The response of the patients to the treatment

الخلاصة

الهدف: لتقييم العلاج التحفظي لحالات الآلام المزمنة للفقرات العصبية الناتجة عن شدة خارجية بواسطة إجراء المساج للفقرات العصبية عن طريق المستقيم مع إجراء المساج للعضلات المتصلة بالعصعص .
التصميم : دراسة حالات متسلسلة .

مكان وزمان إجراء البحث : شعبة جراحة الجملة العصبية في مستشفى ابن سينا التعليمي في الموصل للفترة (آذار 2000-آب 2006) .

المشاركين في البحث : 65 مريضاً (60 إناث و 5 ذكور) مصابون بآلام الفقرات العصبية المزمنة الناتجة عن شدة خارجية ، عولجوا بواسطة مساج الفقرات العصبية ومساج العضلات المتصلة بالعصعص عن طريق المستقيم . المرضى الذين لم يستجيبوا للعلاج بهذه الطريقة عولجوا جراحياً عن طريق قص الفقرات العصبية .

النتائج : خمسة وستون مريضاً عولجوا بواسطة مساج الفقرات العصبية عن طريق المستقيم . ستون مريضاً استجابوا لهذه الطريقة من العلاج التحفظي . خمسة مرضى أجريت لهم عملية قص الفقرات العصبية ، ثلاثة من المرضى الذين أجريت لهم عملية قص الفقرات العصبية استجابوا للعلاج الجراحي أما المريضان الباقيان فلم يستجيبوا حتى للعلاج الجراحي .

الاستنتاج : العلاج التحفظي لآلام الفقرات العصبية المزمنة الناتجة عن شدة خارجية هو الأمل . أما

العلاج الجراحي فهو يبقى فقط للحالات المرضية التي لا تستجيب للعلاج التحفظي .