Coccygodynia:* 
Cause and Treatment 

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Dorland* defines coccygodynia as "pain in the coccyx and neighboring region." Eighty per cent of cases are caused by poor sitting posture, or by anorectal or other associated focal infection. Twenty per cent are caused by direct trauma. Coccygodynia is more frequent in women than in men in a ratio of about 5.5:1. The complaint is widespread, and the patient is frequently seen by the proctologist, orthopedist, obstetrician and general practitioner. 

Except in patients with coccygodynia of acute traumatic origin, pressure on the tip of the coccyx is not painful. Knowledge of this fact should long ago have served as a clue that coccygeal disease or arthritis of the sacroccygeal joints is not ordinarily the cause of coccygodynia. The levator ani and coccygeus muscles are almost invariably tender and spastic, and pressure on the tip of the coccyx fails to cause discomfort even though the patient says his pain is "in the tailbone." I am convinced that coccygeal pain originates in the spastic levator ani and coccygeus muscles, and that it is referred from these muscles to the coccygeal area, except in those cases caused by acute trauma. I believe it can be cured by massage of these muscles and removal of anorectal or other associated focal infection. 

In 1936, I presented a preliminary report on the treatment of coccygodynia by massage of the levator ani and coccygeus muscles. That report was based on a study of the records of only 12 patients. Another report in 1937 was based on a study of the records of 87 additional patients treated by myself and eight other American proctologists. The conclusions of this presentation are based on a study of case records of 324 patients seen from March 1934 to January 1962. Of these, there were 275 women and 49 men whose ages varied from 14 to 74 years, the average being 42.8 years. The duration of symptoms varied from three days to 35 years, the average being 18.6 months. 

Historical Review 

Medical literature dealing with coccygodynia has been somewhat limited. The bibliography of this presentation includes 39 articles found in American literature until January 1963, beginning with Sir James Y. Simpson's outstanding paper which appeared in 1859. 

The inefficacy of the treatment of coccygodynia is attested by the many types of therapy which have been utilized. Results obtained by rest, administration of physical therapy and sedatives have not been satisfactory. Injections of various solutions into the soft tissues adjacent to the coccyx have produced results that are sometimes encouraging, probably because they produce relaxation of muscle spasm. Coccygeotomy has too often resulted only in chagrin for the surgeon and disappointment for the patient. 

In Simpson's classic thesis, he said that when the coccyx or the coccygeal joints had been injured, or when the surrounding tis-

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TABLE 1. Results of Treatment in Mentzer's 150 Cases

<table>
<thead>
<tr>
<th>Patients</th>
<th>Cured</th>
<th>Improved</th>
<th>Unimproved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Group I, 64</td>
<td>44</td>
<td>69</td>
<td>16</td>
</tr>
<tr>
<td>Group II, 53</td>
<td>30</td>
<td>57</td>
<td>20</td>
</tr>
<tr>
<td>Group III, 33</td>
<td>27</td>
<td>82</td>
<td>5</td>
</tr>
</tbody>
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In the more severe cases in Groups I and II, in addition to massage, an injection of oil-soluble anesthetic was done in 45. Group III had had proctologic surgery. Note that the percentage of cures rose from 57 to 82 after anorectal surgery.

issues were the seat of inflammation, contraction of the muscles attached to the coccyx would excite the characteristic pain of coccygodynia. That statement is as true today as when Simpson made it, and it is noteworthy that until 1934, although he has been quoted by many authors, no one had used his conclusions as a basis for management of this crippling symptom complex.

Ely, in 1910, reported on the treatment of coccygodynia by massaging, with the thumb and forefinger, the coccyx and its contiguous soft parts. He stated that, “Usually two or three treatments at intervals of two or three days will suffice for a cure.” He did not mention muscle spasm nor did he describe massage of the levator ani or coccygeus muscles.

In 1914, and again in 1919, Yeomans reported his experience with the treatment of coccygodynia by injection of alcohol into the surrounding soft parts.

Suermondt, in 1931, reported relief for some of his patients by injection around the coccyx of procaine hydrochloride solution.

In 1933, Kleckner presented a paper on the treatment of coccygodynia by injection of a 5 per cent solution of quinine and urea hydrochloride, and presented a short résumé of some of the papers which had been written previously.

Waters, in 1937, reported good results (clinical cure) in 41 of 53 patients treated by injection of 3 to 6 cc. of novocaine, repeated every five to seven days, until the patient was completely relieved. Six of ten patients who did not complete the series of injections later reported marked improvement.

I believe that the good results following injections may be ascribed to relaxation of spasm of the levator ani and coccygeus (and, at times, of the mesial fibers of the gluteus maximus) muscles.

In 1934 McCusker reported good results following coccygectomy in seven patients. All were cases of acute trauma.

Key, in 1937, reported cures in 12 of 15 patients who had undergone coccygectomy, 14 of whom had suffered acute trauma. The remaining case was one of postural trauma in a stenographer. He said, “... there is acute pain on direct pressure over the coccyx. There is also pain on pressure on its anterior or deep surface by rectal examination and pain on manipulation of the coccyx with the finger in the rectum.”

He added, “In my opinion, the gross form or position of the coccyx has little or nothing to do with the syndrome of coccygodynia, because no two coccyges which I have removed were alike and most of them would be classified as normal.” In attempting to explain this condition, he said he had sectioned six of the specimens and had found nothing abnormal.

At Saint Luke's Hospital, Kansas City, Missouri, coccyges have been removed from 16 patients since 1956. F. C. Helwig, the pathologist, found nothing abnormal in any of them.

Hobart, in 1937, used manipulation