

COC CYX DISORDERS

Jean-Yves MAIGNE
Levon DOURSOUNIAN

PARIS SYMPOSIUM – JULY 2016



CONTRIBUTORS OF THE BOOK

Jean-Marie Berthelot

(with Amélie Levesque &
Jean-Jacques Labat)
Hôtel-Dieu University Hospital
1, place Alexis Ricordeau
Nantes, France

Cyrille Cazeau

Clinique Victor Hugo
5 bis, rue du Dôme
Paris, France

Levon Doursounian

Saint-Antoine University Hospital
184, rue du Faubourg Saint-Antoine
Paris, France

Charles Court

(with Gilles Missenard)
Bicêtre University Hospital
78, rue du Général Leclerc
Le Kremlin-Bicêtre, France

Michael Durtnall

Sayer Clinics
London, UK

Patrick M. Foye

(with Mina Senouda).
Rutgers University, New Jersey
Medical School
Newark, NJ, United States

Elif Gurkan

Terapiart Physical Medicine and
Rehabilitation Center
Istanbul, Turkey

Mansour Khalfallah

(with Roger Robert)
Polyclinique Côte Basque
7, rue Léonce Goyetche
Saint-Jean de Luz, France

Anne Lassaux

Hôpital Rothschild
5, rue Santerre
Paris, France

Frédérique Le Breton

(with Rebecca Haddad, Laura Weglinski,
Delphine Verollet & Gérard Amarenco)
Tenon University Hospital
4, rue de la Chine
Paris, France

Jean-Yves Maigne

Hôtel-Dieu University Hospital
1, Place du Parvis de Notre-Dame Paris,
France

Jon Miles

Oxford, UK
www.coccyx.org

Isabelle Pigeau

Victor Hugo Radiology Clinic
7, rue Mesnil
Paris, France

The first international symposium on coccyx disorders that we organized in Paris in July 2016 was an opportunity for us to take stock of 25 years of experience on coccygeal pathology. During this congress more than 70 participants from 15 different countries were given the opportunity to present their work or exchange their knowledge and ideas on a topic that still remains the forgotten end of the spine. This knowledge is recent. In 1959, Howorth concluded a review on coccydynia published in the *Clinical Orthopedic* with these premonitory words: «The lesions of the coccyx are the usual lesions of the musculoskeletal system» but it was a mere intuition. This intuition was accurate and brilliant, but he had no proof, apart from fractures. The proof has been brought by dynamic radiographs, which we described in 1992. The initial idea was simple; since the patients suffer when in a sitting position, it is in this position that the X-rays must be taken, then compared to those taken in the standing position. It is indeed above all the movement described by the coccyx when passing from standing to sitting that matters. Thanks to these dynamic radiographs, we have been able to confirm Howorth's intuition, and detect dislocations (or luxations), and then hypermobility, often with an approximation and friction of the bony parts against one another in the sitting position. The success of our initial treatments resulted in a considerable increase in our recruitment, which subsequently allowed us to detect spicules of the tip with the frequent onset of bursitis and other rare lesions such as disc calcifications and coccyx / seat conflicts due to a subcutaneous projection of the tip of the coccyx or of the sacrococcygeal angle. However, dynamic radiographs are only positive in about 60% of cases, leaving the remaining 40% without explanation, hence the importance of differential diagnosis. Frankly, every time we discovered a tumor, it was the clinical examination and in particular the intra-rectal examination that allowed us to reach this diagnosis.

The table of contents of this book is faithful to the program of the symposium.

After the papers on the etiological diagnosis of coccydynia, a large section is devoted to therapeutics, which includes several topics. The first one, that could be described as functional, is the use of aids to the sitting station and changes in postural habits. Then there are the different injection techniques (intradiscal, apical, injection of the impar ganglion under fluoroscopic or scanner guidance) and manual treatments. As a last resort, surgery (coccygectomy) is offered to the patient. A historical overview of coccyx surgery allows us to measure the mistakes and progress made over the last few centuries and to see how much this surgery was decried before being rehabilitated. Our surgical experience over more than 500 operations allows us to confirm that coccygectomy is a most useful intervention when the indication is relevant. Finally, for cases that cannot make use of these techniques, a pain clinic specializing in chronic perineal pain can provide invaluable help.

Such a work would not be complete without a section devoted to the history of this affliction through the ages, beginning in the seventh century, and to the human and comparative anatomy of the coccyx.

We thank the symposium participants very warmly for their contribution. As it is, this collection marks the state of our knowledge about coccygodynia in 2016. We hope that it will contribute towards a better knowledge of this pathology and that it will encourage further research.

Jean-Yves Maigne and Levon Doursounian

SUMMARY

CHAPTER 1 Basic science

History of coccydynia 7
Jon Miles

Comparative anatomy of the coccyx. 15
Cyril Cazeau

CHAPTER 2 The different lesions of the coccyx and how to evidence them

Dynamic films. Techniques and results.
The different lesions of the coccyx.
Pitfalls in interpreting coccyx lesions. 29
Jean-Yves Maigne

Clinical examination of the painful coccyx 37
Jean-Yves Maigne

MRI and CT scan of the coccyx 44
Isabelle Pigeau

Three rare coccyx lesions 50
Jean-Yves Maigne

CHAPTER 3 Differential diagnosis of common coccydynia

Sacrococcygeal tumours and cysts in adults 57
Charles Court, Gilles Missenard

Pudendal neuralgia 67
Mansour Khalfallah, Roger Robert

Recto-anal dyssynergia and chronic anal pain 72
Frédérique Le Breton, Rebecca Haddad, Laura Weglinski,
Delphine Verollet, Gérard Amarenco

**Neurologic and myofascial disorders mimicking
coccygodynia** 79
Jean-Marie Berthelot, Amélie Levesque,
Jean-Jacques Labat

CHAPTER 4 Conservative management of common coccydynia**Coping with coccyx pain. 87**

Jon Miles

Injections of the coccyx (discs and spicules).**Technique and results.. . . . 93**

Jean-Yves Maigne

Results of CT guided injections for coccydynia 98

Elif Gurkan

Ganglion Impar (Walther) Sympathetic Nerve**Procedures for Coccydynia. 106**

Patrick M. Foye

Manual therapy for coccyx pain 117

Michael Durtnall

CHAPTER 5 Surgical management of coccydynia**History of coccygectomy 130**

Levon Doursounian

Surgical technique. 151

Levon Doursounian

Coccygectomy: Indications, Follow-Up and**Results. 159**

Levon Doursounian

CHAPTER 6 Intractable coccyx pain**Management of failed coccyx surgery 165**

Jean-Yves Maigne

What can a pain specialist do to treat patients**with intractable coccyx pain? 168**

Anne Lassaux