### G Model NEUCHI-873; No. of Pages 6

# **ARTICLE IN PRESS**

Neurochirurgie xxx (2017) xxx-xxx



Disponible en ligne sur

## **ScienceDirect**

www.sciencedirect.com

Elsevier Masson France





# Original article

# Managing spine surgery referrals: The consultation of neurosurgery and its nuances

B. Debono<sup>a,\*</sup>, P. Sabatier<sup>b</sup>, A. Koudsie<sup>c</sup>, K. Buffenoir<sup>c</sup>, O. Hamel<sup>a,c</sup>

- <sup>a</sup> Neurosurgery Department, Neurosciences Pole, CAPIO, clinique des Cèdres, Château D'Alliez, 31700 Cornebarrieu, France
- <sup>b</sup> Neurosurgery Department, clinique Brétéché, 44000 Nantes, France
- <sup>c</sup> Neurotraumatology Department, Nantes University Hospital, Hôtel Dieu, 44000 Nantes, France

#### ARTICLE INFO

### Article history: Received 1st April 2017 Received in revised form 14 May 2017 Accepted 31 May 2017 Available online xxx

Keywords: Spine surgery Referrals Surgical assessment Consultation

#### ARSTRACT

Introduction. – Spinal disorders, particularly low back pain, are among the most common reasons for general practitioner (GP) consultation and can sometimes be a source of professional friction. Despite their frequency and published guidelines, many patients are still mistakenly referred by their GP to specialists for spinal surgery consultation which can create colleague relationship problems, suboptimal or unnessary delayed care, as well as the financial implications for patients.

*Purpose.* – To assess the management of GP lumbar spine referrals made to 4 neurosurgeons from 3 neurosurgical teams specialized in spinal surgery.

Methods. – All patient's medical records relating to 672 primary consultants over a period of two months (January and February 2015) at three institutions were retrospectively reviewed. Medical referral letters, clinical evidence and imaging data were analyzed and the patients were classified according the accuracy of surgical assessment. The final decisions of the surgeons were also considered.

*Results.* – Of the 672 patients analyzed, 198 (29.5%) were considered unsuitable for surgical assessment: no spinal pathology = 10.6%, no surgical conditions = 35.4%, suboptimal medical treatment = 31.3%, suboptimal radiology = 18.2% and asymptomatic patients = 4.5%.

Conclusion. – Unnecessary referrals to our consultation centers highlight the gap between the reason for the consultation and the indications for spinal surgery. Compliance with the guidelines, the creation of effective multidisciplinary teams, as well as the "hands on" involvement of surgeons in primary and continuing education of physicians are the best basis for a reduction in inappropriate referrals and effective patient care management.

© 2017 Elsevier Masson SAS. All rights reserved.

# 1. Introduction

Degenerative lumbar spine pathologies are among the most frequent reasons for spinal surgery referrals. Their frequency, the multiplicity of their etiology, their economic impact in terms of public health and the lack of basic guidelines for spine surgery referrals continue to create patient care management difficulties [1]. These complaints are the third most frequent (15% of consultations) made by general practitioners (GP) in France [2], which is a similar rate for most industrialized countries [3]. Moreover, the patient, at the same time, lives in a world saturated by medical information (health press, access of Internet medical data, etc.) with too many treatment options [4].

\* Corresponding author.

E-mail address: bdebono@gmail.com (B. Debono).

http://dx.doi.org/10.1016/j.neuchi.2017.05.003 0028-3770/© 2017 Elsevier Masson SAS. All rights reserved. The French National Health Authority – HAS, originally proposed in their guidelines a clear course of action based on radiological imaging results and therapeutic options, but this was some 15 years ago [5]. Also, several recently published studies have emphasized the GPs lack of adherence to basic referral guidelines [6,7]. Degenerative spine diseases are also associated with significantly increased healthcare procedures involving both primary care providers and specialists [8].

The reasons for spinal surgery referral varies greatly, depending on the failure of pain control, the occurrence of neurological symptoms or specific radiological image [4].

Sometimes the reason for the decision is not clear and the high rate of unnecessary referrals is considerable [9].

The problem of optimal management of patients lies in effective programming of surgical treatment [7], as well as providing alternative appropriate care for non-surgery patients [4,10].

Without underlining the disorganization of the workflow in a GP office overloaded with consultations, referrals can also create a

# ARTICLE IN PRESS

B. Debono et al. / Neurochirurgie xxx (2017) xxx-xxx

problem in terms of patient well being (delays in treatment, cost of irrelevant supplementary examinations, etc.). Finally, there is a significant risk of deterioration regarding the relationship between patients and practitioners [11], and subsequently between concerned colleagues, due to a lack of cohesion in mutual decisions.

The high rate of these misreferrals prompted us to reexamine the GP appointment procedure.

The aims of this study were to:

- analyze the reasons for initial patient referral;
- assess first time spinal surgery patients;
- review the decision for the original referral at the end of consultation:
- propose alternatives in order to optimize specific care.

#### 2. Methods

The Ethics Committee of the clinique des Cèdres approved this study. The three institutions involved in the study were:

- the Neurosurgery Department of Toulouse clinique des Cèdres ("Cèdres"):
- the Neurosurgery Department of Nantes University Hospital (NUH);
- the Neurosurgery Department of Nantes clinique Brétéché ("Brétéché").

Both Cèdres and Brétéché centers are private institutions whereas the NUH is public.

All records relating to primary consultants over a two month period (January and February 2015) at the three institutions (Cèdres: 1 consultant, NUH: 2 consultants, Brétéché: 1 consultant) were retrospectively reviewed.

The following items were recorded:

- letter and reason for GP referral;
- specific questions;
- type of diagnostic tests;
- the neurosurgeon's reply to the GP.

Each file was stratified according referral relevance based on an elementary classification (Table 1).

## 2.1. Statisical analysis

Statistical analysis was performed using SPSS version 14.0 (SPSS Inc., Chicago, IL).

Quantitative variables were compared using a Student's t-test. Categorical variables were compared using  $\chi^2$  or Fisher's exact test according to the sample size. The chosen level of significance was P < 0.05.

**Table 1** Classification of patients according to their referral reason.

	Problem	Example
0	Pathology suitable for spinal surgery	Radicular deficit on lumbar disc herniation
1	Non-spinal pathology (misdirection)	Inguinal hernia
2	Non-surgical spinal pathology	Ankylosing spondylitis
3	Suboptimal medical treatment	Recent sciatica, no deficit, untreated
4	Suboptimal radiology	Chronic low back pain without CT nor MRI
5	Asymptomatic patient	Healed sciatica and resumed work

### 3. Results

### 3.1. Comparative description of primary consultants

During the study period, 672 primary spinal surgery consultations were completed at three institutions: Cèdres = 226 patients (33.6%), NUH = 185 CHU (27.5%) and Brétéché = 261 (38.9%).

Average age was 53 years and the sex ratio female/male 0.88. The average time between making appointments and the consultation was 27 days. On average, 85% of patients were referred by a GP and 5.2% of patients by a rheumatologist. The results for each center is shown in Table 2. The only significant difference was the consultation period after making an appointment (47 days for NUH vs. 13 days for Cèdres and 24 days for Brétéché, Student's t-test P<0.05).

### 3.2. Consultations relevance

Among the 672 primary consultants in this series, 198 (29.5%) were inappropriate (class 1-5) and 474 (70.5%) were well referred (class 0). The percentage of misdirected patients for Cèdres was 23.9% (54/226 patients), NUH 33% (61/185 patients) and Brétéché 31.8% (83/278 patients). There was no significant difference between the 3 groups ( $\chi^2$ , P = 0.08).

### 3.3. Well referred patients (class 0)

In the group of 474 patients in class 0 (well referred), a clear question identifying the problem was found in 68.5% of the referral letters (325 cases).

The consultation conclusion was:

- a surgical proposal in 256 cases (54%);
- a therapeutic optimization in 84 cases (17.7%);
- an optimization of the paraclinical testing in 68 cases (14.3%);
- a referral to a rheumatologist in 35 cases (7.4%);
- no specific proposal in 24 cases (5.1%);
- a referral to other specialized practitioners in 7 cases (1.5%).

**Table 2** Characteristics of primary consultants (n = 672) according to their reference institution.

	Age (years)	Sex ratio W/M	Consultation delay after taking appointment (days)	Patients referred by GP (%)	Patients referred by rheumatologist (%)		
Cèdres (n = 226)	52	0.83	13	84	9		
NUH (n = 185)	55	0.96	47	76	3		
Brétéché (n = 261)	53	0.86	24	92	4		
Total	53	0.88	27	85	5.2		

GP: general practitioner; NUH: Nantes University Hospital.

Please cite this article in press as: Debono B, et al. Managing spine surgery referrals: The consultation of neurosurgery and its nuances. Neurochirurgie (2017), http://dx.doi.org/10.1016/j.neuchi.2017.05.003

# Download English Version:

# https://daneshyari.com/en/article/5681545

Download Persian Version:

https://daneshyari.com/article/5681545

<u>Daneshyari.com</u>