Facial Pain

I. A Prospective Survey of 1052 Patients with a View of: Definition, Delimitation, Classification, General Data, Genetic Factors, and Previous Diseases*

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Summary

1052 patients with facial pain have been examined and followed up by the author for an 18-year period. The patients are classified according to type of attack into: Typical Trigeminal Neuralgia (brief pain paroxysms with pain-free intervals), Atypical Trigeminal Neuralgia (pain paroxysms with intervals of pain or paroxysms lasting for minutes), Non-neuralgiform Facial Pain (pain lasting or occurring for long periods). The material was equally distributed between patients with Neuralgia and Non-neuralgiform Facial Pain. In the majority of cases Trigeminal Neuralgia occurred after the age of 50, Non-neuralgiform Pain mainly between 30 and 50. There is a majority of women with Non-neuralgiform Pain. No genetic factors could be demonstrated. A detailed registration of previous diseases in the central nervous system, the peripheral nerves, and the facial structures revealed no relation to important aetiological factors.

Keywords: Facial pain; classification; previous disease; aetiology.

Introduction

Since Fothergill in 17761 published his brilliant description of the symptomatology of facial pain—based on material comprising 14 patients—countless works on the subject have been published. Facial pain is still a poorly delimited province of disease which cannot be conceived as a nosological unit and hardly as a nosographic one either. There is much uncertainty as regards nomenclature, definition, delimitation, symptomatology, indication for treatment and therapeutic possibilities.

In the persistent search for new methods of treatment and prompted by an urge to publish information concerning the therapeutic effect, the value of a thorough evaluation of the individual symptoms has often been disregarded. This has happened in spite of the importance of the symptomatology being repeatedly emphasized. “I cannot overemphasize the importance of a careful history and physical examination if an accurate diagnosis is to be established”6.

The purpose of this work is — through a prospective, systematic and detailed questioning, examination and registration of the characteristics of facial pain—to evaluate the relation of individual symptoms to aetiology, diagnostic and therapy, to decide the importance of previous and present diseases for the onset of pain and its symptomatology, to delimit indication for investigation and treatment and to find a useful classification and nomenclature.

The Boundaries of the Face

The boundaries of the face correspond to the usual clinical concept: the hairline, the frontal fixation of the ear, the posterior and lower edge of the lower jaw—corresponding to the osseous structures: the coronal suture and the external acoustic meatus, the lateral and the caudal limitation of the lower jaw.

The depth delimitation is more difficult. The face includes the oral cavity, the nasal cavity, the accessory air sinuses of the nose, and the contents of the orbit. The oral cavity is limited posteriorly by the palatine arches and on the tongue: the coecal foramen. An anatomic depth delimitation of the forehead is not possible. Pain described more profoundly than the frontal bones is not comprised by the concept of “facial pain”, but is referred to as “headache”.

The delimitation of the face corresponds more or less to the innervation area of the trigeminal
nerve — excluding the meningeal innervation, however. In the innervation area of the 1st trigeminal branch there is no distinct limit between the coronal and lambdoid sutures. Pain radiating from or exclusively localized to the theca is not considered facial pain.

Own Material

Delimitation of the Material

The material comprises patients with pain originating within the area which — according to the description — belongs to the face.

The following patient groups are excluded:
1) Patients with facial pain originating from demonstrable infiltration in or compression of the trigeminal paths.
2) Patients with typical symptoms of and/or objective findings corresponding to an existing disease in the facial structures — in particular inflammation.
3) Patients with pain originating outside the innervation area of the trigeminal nerve and radiating to the face.

The material thus comprises patients with facial pain as the only or absolutely dominant symptom without suspicion of a somatic basis of the pain.

Collection and Distribution

The material comprises 1052 patients with facial pain. All patients have been questioned and examined and their data recorded by the author. The particulars of the clinical history have been given at the first contact in the period covered by the study at which time the basic examination was also undertaken. As the vast majority of the patients have been followed for a number of years it has been possible to supplement and correct the information collected.

The material was collected over an 18-year period. During the first 6-year period the patients came from departments of the University Hospital (the Municipal Hospital), Aarhus and during the past 12 years from the University Hospital (the National Hospital), Copenhagen.

In certain respects the material has been divided into two groups: A — the first nine-year period, B: the last nine-year period.

The patients are distributed among the departments as follows:

- Departments of neurosurgery 74.6%
- Departments of neurology 11.6%
- Dental clinics and the Dental College 9.6%
- Otologic departments 3.6%
- Other departments, especially departments of medicine 0.6%

The figures correspond to the department at which the first examination took place. A total of 932 patients (88.5%) have been hospitalized with facial pain, whereas 120 (11.4%) were out-patients. All out-patients have been followed for a 5-year period at least.

Classification on the Basis of the Type of the Attack

The type of the attack forms the basis of classification of the patients. There are two main groups: Neuralgiform and Non-neuralgiform Pain: The neuralgiform pain is also subdivided into: Typical Trigeminal Neuralgia and Atypical Trigeminal Neuralgia.

By Typical Trigeminal Neuralgia is understood: Transitory, paroxysmal pain of 2 minutes' duration at the most and with painless intervals.

By Atypical Trigeminal Neuralgia is understood: a) Transitory pain paroxysms of 2 minutes's duration at the most with intervals of lower intensity of pain. b) Pain paroxysms of several minutes' duration.

By Non-neuralgiform Pain is understood: a) Incessant, constant pain. b) Pain paroxysms of more than one hour's duration.

In the tables Typical Trigeminal Neuralgia is termed: TTN Atypical Trigeminal Neuralgia: ATN Non-neuralgiform Facial Pain: NNFP

The classification according to type of the attack will appear from Table 1. There is an even distribution in the total material of patients with Neuralgiform and Non-neuralgiform Pain and among patients with Neuralgia between Typical and Atypical Trigeminal Neuralgia. There has been a shift between the types of attack during the period covered by the study. In the first half (A) the Non-neuralgiform Pain constituted 1/3, in the last half (B) 2/3 of all the patients with facial pain.

In Fig. 1 the type of the attack is related to the department to which the patient was primarily referred. The percentage calculation has been made on the basis of the total number of patients with facial pain admitted to the department in question. It will appear from the diagram that the frequency of Trigeminal Neuralgia is falling in the following order: Department of neurosurgery (NS) — Department of neurology (NM) — Otolaryngology department (ENT) — Dental clinic (DC). As regards Non-neuralgiform Pain the order is reversed. The shift from Neuralgia to Non-neuralgiform