

Introduction

Reports detailing probable cases of neurofibromatosis have appeared since the 16th century. The first review of the disease was published in 1849 by the Dublin Professor of Surgery, **Robert W. Smith**, who suggested that the origin of the tumours was the connective tissue surrounding small nerves. It was **Friedrich von Recklinghausen** in **1882** who first recognized that the tumours that characterize the disease arise from nervous tissue; his name has since been inextricably linked with the condition. (**Gutmann et al., 1997**).

Friedrich Daniel von Recklinghausen.(1833–1910), was born in *Gütersloh, Westphalia*, and graduated in Berlin in 1855. In 1881, as a tribute to Rudolf Virchow's 25th year Jubilee, he wrote his classical article on neurofibromatosis. The first patient, a 55 years old woman who was admitted because of lung haemorrhages, died a few hours after admission to the hospital and was autopsied. Skin tumours had been present since the age of three. At autopsy the following findings were noted: (**Biousse et al., 2003**).

"Innumerable nodules, almost over the entire outer skin layer, for the most part on stalks, while others sat on broad bases and were mostly simple spheres in all possible sizes. The larger ones, however, were especially polypous, up to 5 cm long and 4 cm thick, all covered with completely intact, almost smooth skin, although on the sacrum there was a flatly pressed mushroom-shaped nodule, lightly ulcerated on its surface, while another small ulcerated nodule appeared on the left side of the trunk..."

In general, the skin of the entire body had a dirty brown colour; closer examination revealed the existence in many places, particularly on the trunk and throat, of innumerable brown pigmentation spots...

On the left side, on the femoral nerve, in the middle of the thigh below the origin of the saphenous nerve, there was a spindle-shaped tumour 32 mm long, 7 mm thick running along the posterior side of the nerve. At the knee was another small tumour on the saphenous nerve...

There were small tumours on the muscle rami of the femoral nerve. The lateral cutaneous (femorocutaneous) nerve exhibited two tumours, one below the branching point on the upper ramus, the other a hand-width above it...

The spinal cord and brain were unremarkable, even under microscopic examination. Death resulted from pulmonary haemorrhage from a pulmonary artery aneurysm. (Biousse et al., 2003).

The autopsy report was followed by a histological description:

There were no signs of nerve fiber neoplasia or fatty degeneration. Even in larger neurinomas, the nerve fibers could be distinguished. Although still myelinated, some fibers showed an increase of connective tissue. (*Biousse et al., 2003*).

The second case history was a 47 year old man with unaffected relatives; he had observed the number of skin tumours had increased since he was fifteen. *Von Recklinghausen* found enlargement of the peripheral nerves he could distinguish from skin fibromas. With his colleague, *Friedrich Jolly*, they noted normal sensibility for pain as well as the irritability of the muscle by electric stimulus of the median nerve. Four small nodules examined microscopically disclosed the same findings as in the first case. He decided that "fibromas formed in the greater trunks in layers, but at first started in primitive nerve fibers". (*Biousse et al., 2003*).

The most frequent tumors of the cranial nerves are referred to as schwannomas (formerly neuromas). They may develop in most cranial nerves, except I and II, which do not have Schwann cells, except for very rare cases of ectopic pediatric olfactory schwannomas. Nowadays, the incidence of the most common central nervous system (CNS) tumor in NF, the vestibular schwannoma, is estimated to be 1.3 per 100.000 inhabitants per year, compared with 0.8 in the period between 1976 and 1983. The incidence is rising since the distribution of Magnetic Resonance Imaging (MRI) became widespread. (*Wowra et al., 2010*).

Some brain tumors are benign and asymptomatic, but malignant brain tumors occur. The major cause of death is malignancy, including brain tumors and malignant peripheral nerve sheath tumors. Management includes genetic counseling, regular eye examinations, and careful physical exams. (*Tonsgard et al., 2006*).