

Historical Article

The Emperor who smoked a pipe

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Abstract

Since 1946 authoritative reports have identified smoking as a cause of cancer of the lung and a probable cause of cancer of the larynx. Crown Prince Frederick (later Emperor Frederick III of Prussia and the German Kaiser) was a pipe smoker for at least 30 years before he died of cancer of the larynx in 1888 at the age of 57 years. The evidence is so overwhelming that this author proposes that the Emperor's laryngeal cancer was induced by tobacco.

Key words: History of Medicine, C19th; Laryngeal neoplasms; Smoking

Introduction

A partial autopsy on Emperor Frederick III (1831-1888) of Prussia established that the cause of death was laryngeal cancer (Bardeleben *et al.*, 1888). During the past 50 years we have learned that smoking is a cause of cancer of the lung and a probable cause of cancer of the larynx. Emperor Frederick III of Prussia was a smoker. There is overwhelming evidence, culled from several publications which appeared in 1887 and 1888, and from two biographies, that it can be argued that tobacco caused his cancer, even though the cancer was in the larynx.

He was a Crown Prince when his illness was first reported in the press, and an Emperor when he died. The details of his final illness are displayed in Table I.

An American doctor, Robert Myers, examined the Crown Prince at Morell Mackenzie's residence, in London, in July 1887; he wrote later 'I understand that the Crown Prince has all his life shown a marked tendency to congestion of the throat' (Myers, 1887).

It may be that Frederick began to smoke in his teens. There is ample evidence that Frederick was a habitual smoker for 30 years before the onset of his mortal illness in 1887. When he was 26 years old and in command of a regiment in Breslau, he was seen 'almost every day sitting in a café near the Palace on the Karlstrasse, smoking, drinking his black coffee, and playing at chess'. (*Pall Mall Gazette*, 1888 c). Towards the end of his life, when he was 57 years old, it was said he was 'an inveterate smoker' (*Pall Mall Gazette*, 1888 a). Also in 1866, impatient for news of his troops during the war with Austria, he complained to an aide 'Here I am condemned to do nothing but smoke one pipe after another' (Poschner, 1898). On the other hand after Frederick's death Sir Morell Mackenzie told a friend that 'Frederick's partiality for tobacco was greatly overstated; he had always smoked in great moder-

ation'. (*Pall Mall Gazette*, 1888 d). But the evidence suggests otherwise.

Frederick's pipes

Frederick was given a 'handsome pipe' by his wife

TABLE I
SUMMARY OF THE CLINICAL HISTORY OF FREDERICK III'S
LARYNGEAL CANCER

	Event	Outcome	Report
1887			
January	Hoarseness		
March 6	Growth seen		
March/April	Cautery		
April/May	Rest		
May 15-18	Growth larger	Diagnosis: cancer (G)	No biopsy
May 21	First biopsy (M)	One tiny piece	Negative (V)
May 23	Second biopsy	No pieces	
June 8	Third biopsy	Two good pieces	Negative (V)
June 28	Fourth biopsy	One small piece	Negative (V)
November 9-11	Examination	Diagnosis: cancer (G, M)	No biopsy
1888			
January 17	Slough: microscopy (V)		Neutral
March 4	Sputum: microscopy (W)		Cancer
May 19	Sputum: microscopy (V)		Negative
June 16	Autopsy: microscopy (V, W)		Cancer

G: German doctors; M, Mackenzie; V, Virchow; W: Waldeyer.



(a)



(b)

FIG. 1(a)

Crown Prince Frederick at Versailles in 1870; (b) close-up of (a).

(*Pall Mall Gazette*, 1888 b). During the Franco-Prussian war (1870–1871) the Berlin Relief Society sent him a 'carved wooden pipe' for Christmas (Poschinger, 1898). There are three pictures of Frederick, showing his pipe in the book *Kaiser Friedrich der Gute* (Muller-Bohn, 1900) (see Figures 1–3).

Smoking and Frederick's illness

When Morell Mackenzie was in Berlin to give a second opinion on the diagnosis of cancer (Table I), he asked Frederick 'if it was true as commonly reported that he had been a great smoker', and the reply was that for many years he had hardly smoked at all (Mackenzie, 1888). It could have been that he was an abstainer by this time. Evidently he gave up tobacco at an early stage in his illness, on the advice of his medical attendants, but we do not know when (*Pall Mall Gazette*, 1888 a). We do not know who advised abstinence, but it is conceivable that Mackenzie was the advocate.

At one time Mackenzie was a 'great smoker' of cigars (Haweis, 1893). Through his clinical experience he had considerable knowledge of how smoking affected the larynx. Nicotine he believed was a systemic poison: it was hot smoke that harmed the voice. He said 'the effects of over-smoking on the throat, when the habit has not been too long indulged in, can as a rule be easily cured by the simple remedy of discontinuing the practice which engenders them' (Mackenzie, 1890).

Tobacco and cancer

Mackenzie's friend, the editor of the *Pall Mall Gazette*,

W. T. Stead, a layman with a profound and circumspect interest in cancer, informed his readers of Mackenzie's views on tobacco and cancer in November 1887 (*Pall Mall Gazette*, 1887) after a bulletin revealed that Frederick had cancer (Table I). Asked if the tumour was due to excessive smoking, Mackenzie replied 'no'. Then he explained that he agreed 'with the generally accepted scientific doctrine that the germ of cancer is born with the individual' (*Pall Mall Gazette*, 1887). Later, regarding cancer of the tongue, Mackenzie wrote: 'Whether this terrible disease actually originates from irritation, or whether it must first be in the system and is only brought to a focus by local irritation, has not yet been determined' (Mackenzie, 1890). Mackenzie, it seems, regarded tobacco not as a carcinogen (modern term) but as an irritant. In fact, two years after his Berlin experience he wrote that tobacco was meant to be used, 'and if used in the right way it is often helpful rather than injurious' (Mackenzie, 1890).

Secondhand smoke

In his article '*The effect of smoking on the voice*' Mackenzie specified that 'it is not necessary to smoke to be a victim of tobacco' (Mackenzie, 1890). Tobacco smoke at the table, in the drawing room, or even in the bedroom, in cigar factories, and at smoking concerts and in railway smoking carriages may irritate the throats of nonsmokers. While he said nothing about the risk of cancer in the respiratory system under these circumstances, he shed some light on Frederick's life-style.

Conclusion

Frederick was a peaceful man who went to war to fulfil



FIG. 2
Portrait, dated 1898 (after his death): Emperor Frederick III at the family farm (note pipe in his hand).



FIG. 3
Crown Prince Frederick at hunting lodge 1886 (note pipe in his mouth).

his duty as a Crown Prince of an aggressive nation. His pipe, he said, was his solace during his campaigns. During the Austro-Prussian war (1866) he commented once that he was smoking pipe after pipe; during the Franco-Prussian war (1870–71) he was seen with pipe in hand; he may have smoked his pipe for solace during the war with Denmark (1863–64). There is a picture of him at ease with a pipe in his mouth at a hunting lodge in 1886, one year before he became hoarse (Figure 3). Often from an early age he would have been in places thick with smoke, sometimes dense.

With the benefit of what is now known about the aetiology of cancer of the larynx, tobacco appears to have been the cause of Emperor Frederick III's demise.

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