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**INCIDENCE RATES IN NORDIC COUNTRIES DO NOT SHOW INCREASE  
IN PAROTID GLAND TUMORS AS MOBILE PHONE USE INCREASED**

SWEDEN

Research Summary

Key words: RF, epidemiology, cancer, salivary gland, parotid gland, incidence rates, mobile phone

Madison, Wisconsin---A stable or declining trend in the incidence of malignant parotid gland tumors during the last 40 years in the Nordic countries – “during which there was relatively early and full adaptation of mobile phone use” – does not support the results of studies indicating an increased incidence of parotid gland tumors with mobile phone use, according to Xiaochen Shu, Anders Ahlbom, and Maria Feychting of the Karolinska Institute in Stockholm, Sweden, in a letter to the editor of Epidemiology.

**METHODS**

They obtained data on patients 20 years or older with a primary diagnosis of parotid gland neoplasms or salivary gland neoplasms from 1 January 1970 to 31 December 2009 from the Swedish Cancer Registry and the NORDCAN database. The incidence rates were age-standardized to the world standard population. During this time period, the prevalence of mobile phone use rose from 0 to nearly 100%, and the parotid gland is among the highest exposed tissues during mobile phone use, Shu et al. note.

**RESULTS**

Over the 1970-2009 period, 3604 salivary gland tumors were identified in Sweden. Of these, 2624 were malignant parotid gland tumors. The incidence of parotid gland tumors “decreased slightly during the early study period, and then remained stable for both sexes (0.9/100,000 person-years in 1970 and 0.8/100,000 person-years in 2009 for men; 0.7/100,000 person-years in both 1970 and 2009 for women,” the authors say, as is evident in a graph of incidence rates with time.

In the whole Nordic population, “The age-standardized rate of salivary gland tumors...during the period 1970-2009 was 1.1/100,000 for men (4440 cases) and 0.9/100,000 for women (4178 cases). No increase in incidence was observed; the annual percent change was -0.1% (95% CI = -0.4 to 0.2) for men and -0.2% (-0.5% to 0.1%) for women.”

“If mobile phone use were a noticeable risk factor for parotid gland tumors, some increase would have been seen in the Nordic countries unless the latency period exceeds 15-20 years. Our results suggest other explanations for increases in the registered incidence of parotid gland tumors observed in Israel [[Archives 10Jan11](#)] and the United Kingdom,” Shu and colleagues observe.

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**BIBLIOGRAPHIC INFORMATION:** Shu X, Ahlbom A, Feychting M. Incidence trends of malignant parotid gland tumors in Swedish and Nordic adults 1970 to 2009. *Epidemiology*. 2012 Sep;23(5):766-7.  
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