
Tilmelding af Foredrag

Foredragets titel

Sinonasal carcinomas

From the center of the cell to a countrywide context: genomic and epidemiological studies.

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Uddannelsesniveau

læge, phd

Introduktion

Phd thesis focusing on sinonasal carcinomas, in particular sinonasal intestinal type adenocarcinoma (sITAC).

Paper I demonstrated a constant incidence of most sinonasal carcinomas, but a slightly improving survival. Papers II and III investigated sITAC, which is histomorphologically indistinguishable from colorectal adenocarcinoma (CRC). Even using immunohistochemical staining the two cannot be distinguished. Several cases of metastases from CRC to the sinonasal tract have been described.

Materiale/metode

Due to the similarities in microscopic appearance we compared genomic alterations found in sITAC with CRC using a panel of 523 cancer-related genes. This revealed that frequently mutated genes in CRC were also frequent in our cohort of sITACs, explaining part of the histomorphological resemblances. We also investigated differences in gene expression that could explain the different clinical courses of sITAC and CRC, the latter being much more prone to metastasize than the first. This study demonstrated that 3139 genes were differently expressed and that one of these genes, CDSE1, could be used to distinguish the two types of cancer using immunohistochemistry.

Resultater

Paper IV investigated a putative precursor lesion of sITAC; intestinal metaplasia of the sinonasal mucosa, which is seen more frequently in persons exposed to wood dust. Using whole exome sequencing we were able to establish the genomic connection between metaplasia and sITAC and identified putative driver mutations in the transformation from normal mucosa to metaplasia and from metaplasia to sITAC.

Diskussion

With these discoveries, we have increased the diagnostic precision and awareness of the possibility of supplementing surgical treatment with targeted treatment in sITAC.

Forfatters fulde navn

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