

JOINT EVENT ON

20<sup>th</sup> Euro-Global Summit on

**Cancer Therapy & Radiation Oncology**

and

**2<sup>nd</sup> International Oncologist & Diagnostics Conference**

August 28-30, 2017 Brussels, Belgium

## Twist and snail expression in tumor and stromal cells of several epithelial odontogenic tumors

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**Background:** The aims of this study were to evaluate expression of twist and snail in tumor and stromal cells of epithelial odontogenic tumors and to analyze relationships between twist and snail expression and between tumor and stromal expression.

**Methods:** Immunohistochemistry was performed using twist and snail antibodies in 60 ameloblastomas (AMs; 20 solid/multicystic, 20 unicystic, and 20 recurrent), six ameloblastic carcinomas (ACs), 10 adenomatoid odontogenic tumors (AOTs), and six calcifying epithelial odontogenic tumors (CEOTs).

**Results:** A higher rate of tumor cells strongly positive for twist was observed in AC compared to the other tumors ( $P=0.019$ ). The rate of tumor cells strongly positive for snail tended to be higher in AC than in AM ( $P=0.060$ ). AM and AC showed a higher rate of twist-positive stromal cells than AOT and CEOT ( $P<0.001$ ). Tumor cells of recurrent AM showed stronger expression of twist ( $P<0.001$ ) and snail ( $P=0.001$ ) compared to AM without recurrence. A moderate positive correlation was observed between tumor expression of twist and snail ( $r=0.376$ ,  $P=0.001$ ) and between tumor and stromal expression of Snail ( $r=0.334$ ,  $P=0.002$ ).

**Conclusions:** Twist and snail may affect the epithelial-mesenchymal transition in AC and be involved in recurrence of AM. Stromal twist expression may be associated with aggressive clinical behavior of epithelial odontogenic tumors. A twist-snail pathway may participate in the development and progression of odontogenic tumors, and tumor-stroma interaction in odontogenic tumors may be mediated by snail.

### Biography

Seong-Doo Hong is an experienced Oral Pathologist and his main research topics are a) pathogenesis of oral cancer and odontogenic tumor and b) development of new drug targeting oral cancer. Recently, he reported several publications on epithelial-mesenchymal transition in oral cancer and several odontogenic tumors.

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