TETRASPANINS EXPRESSION AND HPV INFECTION IN VULVAR CARCINOMAS

Background: Vulvar carcinomas represent approximately 95% of all vulvar tumors. In general, young women have vulvar carcinoma associated with HPV infection. The mechanisms involved in biological behavior of vulvar cancer remain unclear. The identification of features related to vulvar tumors development, or genesis, might contribute to its knowledge and treatment. Tetraspanins are proteins involved in several biological processes, including cell proliferation, adhesion, invasion and migration. Reduction or lack of tetraspanins expression is frequently reported in metastatic and poor prognosis tumors. Our aim was to analyze CD9, CD63, CD37, CD81 and CD82 tetraspanins expression profile in vulvar carcinomas (with and without HPV infection) compared to normal tissue. Methods: Thirty frozen samples were evaluated by quantitative RT-PCR (TaqMan® detection system). TMA blocks were constructed with 150 paraffin-embedded samples and were used in immunohistochemical. Paraffin-embedded (150) samples were used to perform HPV detection (Linear Array, Roche). Results: Both protein and gene expression of CD63, CD9 and CD82 presented higher levels than CD81 in all samples (health and tumor tissues). Vulvar carcinomas presented downregulation of CD9, CD82 and CD81 fold expression compared to normal samples. CD63 transcript presented no differences between two samples group. Conclusion: Our preliminary results showed that tetraspanins, mainly CD9 and CD81, might have an important role in vulvar carcinomas, since the tumor presents lower its transcript and protein expression than normal tissue.