A complete remission with androgen-deprivation therapy in a recurrent androgen receptor-expressing adenocarcinoma of the parotid gland

Salivary gland carcinomas (SGCs) account for 1–5% of all head and neck cancers and include different histotypes. Salivary gland adenocarcinomas (SGA) represent 16% of parotid gland cancers [1].

Chemotherapy is delivered only with a palliative aim in metastatic and/or recurrent disease. The response rate ranges from 10% to 30% and complete remissions are anecdotal [2].

Immunoreactivity for androgen receptor (AR) has been reported in SGCs, suggesting that an approach with anti-androgen drugs could be envisaged [3].

To date a single case of parotid adenocarcinoma achieving a partial remission after treatment with a luteinizing hormone-releasing hormone (LHRH) analogue has been described [4].

Herein we report a case with AR-positive relapsed parotid adenocarcinoma achieving a complete remission with androgen-deprivation therapy.

A 73-year-old man, referred to a right parotidectomy and postoperative radiotherapy for an adenocarcinoma of the parotid gland, presented at our observation with a right preauricular ulcerated lesion (Figure 1A). A biopsy confirmed a local recurrence. AR immunostaining in 100% of the neoplastic cells nuclei was demonstrated (diluted 1:50; Biogenex, CA, USA). The streptavidin–peroxidase technique was used and antigen retrieval was employed.

A total body computed tomography (CT) scan revealed only a lesion of 5 × 3 cm in the right parotid area. A 99mTc bone scan was normal. A serum prostate-specific antigen (PSA) and a transrectal ultrasonography were carried out to exclude a primary prostate lesion.

The patient received a complete anti-androgen blockade (CAB) with monthly triptorelin (LHRH analogue) and bicalutamide. Skin lesions reduced rapidly, until disappearance 2 months later (Figure 1B). A CT scan confirmed a complete remission.

Unfortunately, the patient developed a Philadelphia-negative chronic myelocytic leukemia (CML). In addition to undergoing CAB, he received chemotherapy for CML. He soon died of progressive CML, still in complete clinical remission.

To the best of our knowledge, this is the first case of SGA obtaining a complete remission by a hormone therapy. The regression of the local recurrence suggests an underlying hormone-dependent disease behavior. Unfortunately, we were not able to determine response duration. Nevertheless its occurrence and quickness, as well as the excellent tolerability (in terms of toxicity and costs) of the anti-androgen treatment represents a very valuable result, bearing in mind the poor results in recurrent and/or metastatic SGCs obtained with chemotherapy.
Normal salivary gland tissue has been recognized to positively stain for PSA, independently of gender, while immunostaining for AR has not been consistently found [6, 7]. Immunostaining for AR, and occasionally for prostatic acid phosphatase and PSA, has been reported in duct carcinoma and adenocarcinoma of salivary glands in both sexes [3–6, 8]. These findings suggest that, unlike prostate cancer, PSA expression could be independent of androgen stimulation in normal salivary gland tissue. However, the biological significance of PSA and AR expression in normal tissue and in SGCs, respectively, remains unknown.

In prostatic cancer, androgens play a role as both a survival and growth factor and androgen-deprivation therapy is successfully used.

Our experience suggests that a similar mechanism may be implicated in AR-positive salivary gland tumors. Studies looking at the underlying biological role of AR expression in SGCs are warranted.

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Successfully treated carcinoma erysipeloides from gastric cancer

In August 2000, a 59-year-old woman underwent a total gastrectomy for a poorly differentiated invasive adenocarcinoma (T2N2M0). After an uneventful postoperative recovery, she was discharged and followed up in the outpatient clinic. She presented with red-purple patches on the left supraclavicular region 2 years after surgery. Profuse granulation tissues extending around the lesions appeared. Skin biopsies showed massive and extensive infiltration of the dermis by clusters of poorly differentiated adenocarcinoma cells. Although the patient received palliative radiotherapy (46 Gy) and intravenous chemotherapy consisting of 5-fluorouracil (5-FU) and mitomycin, the skin lesions rapidly became exacerbated. The extensive lesions had irregular margins lacking clear borders with invasive erythematous plaques and profuse granulation tissues with bleeding, covering the entire left side of the neck extending to the infraclavicular area (Figure 1A).

The patient required hospitalization to change the dressings of her left chest tumors and morphine sulfate (50 mg/day) was required

Figure 1. (A) Carcinoma erysipeloides, covering the entire left side of the neck extending to the infraclavicular area. (B) Six weeks after chemotherapy, the tumors dried and scab formation is seen.