

The Role of Intraarterial Therapy on Locally Advanced Oral Cavity Cancer

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Intra-arterial chemotherapy for head and neck cancer has been attempted for many years. Although its indications, the clinical significance, and the selection of suitable anti-cancer agents remain unclear, this method is attractive to achieve a high drug concentration in the tumor.

In 1986, Hattori et al. developed a selective continuous intra-arterial therapy by inserting a catheter from the superficial temporal artery directly to more distal arteries such as the lingual and facial arteries for continuous drug administration. This selective continuous intra-arterial therapy using carboplatin (CBDCA) was started in September 1992, in combination with radiotherapy to treat patients with locally advanced head and neck cancer that were judged uncontrollable by conventional radiotherapy alone. The adverse side effects, the optimal dose of CBDCA with respect to the adverse effects, and treatment results of this modality as the phase 1 and 2 studies are reported. The clinical significance of and indications for this method are also examined.

Technical problems of intra-arterial injection for head and neck carcinomas will be discussed. Conventional intra-arterial injection involves introducing a catheter into the superficial

temporal artery and advancing retrograde to the external carotid artery. In our present study, we inserted a catheter into more distal arteries such as the lingual and facial arteries using a relatively simple technique and achieved a treatment completion rate of over 90%. Other methods of catheterization into a target artery include introducing a catheter via the femoral artery under fluoroscopic monitoring according to Seldinger's method, and inserting a catheter into a target artery exposed through a skin incision in the upper neck. The femoral artery approach is relatively easy and enables catheter insertion into a target artery, but continuous drug administration is impossible. The superficial temporal artery approach is technically simple, and is probably the easiest method to insert a catheter into the lingual, facial or maxillary artery for continuous drug administration. However, the catheter was dislodged from the target artery in some cases and further improvement is necessary.

In this symposium, new approach of this problem, confirmation of treated sites by using MRI, and CDDP with STS will be presented.