Induction chemotherapy in locally advanced head and neck cancer

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Concurrent chemoradiotherapy (CRT) is the standard treatment for locally advanced head and neck squamous cell carcinoma (HNSCC). But it is quite difficult for locally advanced HNSCC with clinical N2c, N3 or N2b with inferior internal jugular node or supraclavicular lymph node metastases to be completely cured by CRT alone. In such cases, induction chemotherapy (ICT) using TPF followed by CRT is widely current. Our results of TPF-ICT in patients with unresectable locally advanced HNSCC are pretty good. However, it remains unclear whether ICT could prolong survival, and moreover TPF-ICT causes strong side effects frequently. Although several randomized phase III trials comparing ICT followed by CRT versus CRT alone have been reported as negative results for a long time, a recent study showed that ICT followed by CRT could improve survival time significantly, compared with CRT alone for the first time ever. Nevertheless, it is still necessary to examine whether ICT should be undergone in patients with locally advanced HNSCC. On the other hand, ICT followed by radiotherapy with cetuximab and some new ICT regimens including cetuximab are currently under examination in the clinical trials in expectation of the reduction of side effects. In the future, we need to further investigate what kind of patients with resectable or unresectable locally advanced HNSCC should receive ICT to improve the laryngeal preservation and survival.