Study confirms chemoradiation is best treatment for locally advanced cervical cancer

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A 14-year randomised trial in more than 600 patients has concluded that chemoradiation should remain the standard treatment for patients with locally advanced cervical cancer. The findings are reported today at the ESMO 2017 Congress in Madrid. The trial demonstrated no improved disease-free survival with neoadjuvant chemotherapy followed by surgery.

Chemoradiation, which refers to radiation delivered simultaneously with cisplatin-based chemotherapy, has been the standard treatment for patients with locally advanced cervical cancer since 1999 when it was shown to improve outcomes compared to radiation alone.

"Even with chemoradiation some patients relapse and die of their disease so there is a need for better treatments," said first author Dr Sudeep Gupta, Medical Oncologist, Tata Memorial Centre, Mumbai, India. "Previous trials have found that neoadjuvant chemotherapy followed by surgery results in superior outcomes compared to radiation alone, but no trial has tested this strategy against standard treatment with chemoradiation."

This trial examined whether neoadjuvant chemotherapy followed by surgical removal of the tumour could improve outcomes in patients with locally advanced cervical cancer compared to standard treatment with chemoradiation.

The trial included 633 patients with stage IB2, IIA or IIB squamous cell cervical cancer who were randomised to either neoadjuvant chemotherapy (paclitaxel and carboplatin) followed by radical hysterectomy or chemoradiation (standard pelvic radiation plus cisplatin).

The primary endpoint was disease-free survival which was defined as survival without relapse or death due to cancer.

After a median follow-up of 58.5 months, the primary endpoint occurred in 30% of patients in the chemotherapy/surgery group and 23% of patients in the chemoradiation group. The corresponding five-year disease-free survival rates were 69.3% in the chemotherapy/surgery group and 76.7% in the chemoradiation group ($p = 0.038$).

"We found the reverse of our hypothesis was true," said Gupta. "Patients who received chemotherapy followed by surgery were less likely to be alive and disease free at five years than those who received standard treatment with chemoradiation."

When the researchers included death due to any cause in the definition of disease-free survival, they found no significant difference between the two treatment groups although there was a trend towards increased disease-free survival with chemoradiation. There was no statistically significant difference in overall survival between the two groups.

Gupta said: "Chemoradiation should continue to be the standard treatment for patients with locally advanced cervical cancer."

Commenting on the results for ESMO, Dr Sandro Pignata, Director, Uro-Gynaecological Department, Istituto Nazionale Tumori IRCCS "Foundation G. Pascale", Naples, Italy, said: "This is the first direct comparison between these two strategies and it shows that chemoradiation should remain the standard treatment."

"Cervical cancer is caused by infection with human papilloma virus (HPV) and can be prevented with vaccination and screening," he continued. "As a result, the incidence of locally advanced cervical

cancer is decreasing in Europe but is still high in developing countries, where modern radiation therapy may not be available. In these situations, neoadjuvant chemotherapy followed by surgery may still be the best option."

Pignata pointed out that an ongoing European Organisation for Research and Treatment of Cancer (EORTC) trial will be the second study comparing chemoradiation with neoadjuvant chemotherapy followed by surgery. He said: "When the EORTC trial has completed, a combined analysis of the two studies may provide further insights into the most effective treatment for locally advanced cervical cancer."

More information: Abstract 928O_PR - 'Neoadjuvant chemotherapy followed by surgery (NACT-surgery) versus concurrent cisplatin and radiation therapy (CTRT) in patients with stage IB2 to IIB squamous carcinoma of cervix: A randomized controlled trial (RCT)' will be presented by Dr Sudeep Gupta during Presidential Symposium II on Sunday, 10 September, 16:30 to 18:00 (CEST), in Madrid Auditorium.

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