THE JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA

The Journal of Obstetrics and Gynecology of India (September–October 2018) 68(5):417–419
https://doi.org/10.1007/s13224-017-1056-6

CASE REPORT

Nimotuzumab in the Management of Recurrent Endometrial Carcinoma: A Case Report

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Received: 13 July 2017 / Accepted: 4 October 2017 / Published online: 10 November 2017

About the Author

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Introduction

The majority of the cancers that affect the body of the uterus originate in the endometrial lining and are endometrial carcinomas. Globally, cancer of the body of the uterus is the sixth most common cancer among women, while in India, it is ranked as the tenth most common cancer accounting for 2.3% of all cancers among women and was responsible for an estimated 4773 cancer deaths (1.5% of total cancer deaths among women) [1].

Survival is very poor with conventional treatment; especially in patients with advanced disease, targeted therapies have shown limited success in endometrial cancer patients. In this case report, we are sharing our experience with nimotuzumab, a novel monoclonal antibody, in the management of a recurrent case of endometrial carcinoma.

Case Report

A 55-year-old female patient came to outpatient department of the hospital with the complaints of lump in abdomen and backache since one and half months.

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Detailed history revealed that patient was diagnosed with cancer 2 years back. It was confirmed that she had suffered from poorly differentiated grade III endometrial adenocarcinoma for which she underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy in 2014. Post-surgery, she was advised adjuvant radiotherapy. However, patient refused to take radiotherapy.

Current mass was hard, fixed and present in right iliac fossa measuring about 6*3 cm in size. Upon further examination, on 9 March 2016, CT scan of whole abdomen revealed multiple hypervascular enlarged infiltrative necrotic lymph nodes in pre- and para-aortic, aorto-caval region, both iliac fossa and adnexa indenting to pelvic side walls. Largest mass was measuring 75*35 mm within right adnexa. Based on the CT scan findings and history, patient was diagnosed as recurrent case of endometrial carcinoma and was recommended treatment with nab-paclitaxel 300 mg IV three weekly for 3 cycles, carboplatin 450 mg IV three weekly for three cycles and nimotuzumab 200 mg IV weekly.

After completing three cycles of chemotherapy, CT scan of whole abdomen on 19 May 2016 revealed sleeve-like conglomerate lymphadenopathy in pre- and para-aortic and aorto-caval regions measuring approximately 12*20 mm in maximum axial dimensions. Discrete centimetre-sized lymph nodes were noted in bilateral iliac regions. Chemotherapy with nab-paclitaxel, carboplatin and nimotuzumab was continued for another three cycles.

At the completion of recommended treatment, CT scan of abdomen on 28 July 2016 showed no evidence of disease and patient was shifted to maintenance therapy using nab-paclitaxel 100 mg weekly along with nimotuzumab 200 mg weekly for 16 weeks. CT scan of whole abdomen on 28 November 2016 after completion of 16 weeks of chemotherapy again showed no evidence of disease, and patient was continued on the treatment for another 3 weeks. Patient tolerated the chemotherapy well and completely adhered to the recommended treatment. No grade 3 or grade 4 adverse events were seen.

After successful completion of treatment with nab-paclitaxel and nimotuzumab, patient was started with megestrol acetate 160 mg QID till disease progression and is on regular follow-up until now. At the last follow-up on 17 June 2017, patient was healthy and comfortably doing daily activities as well as household chores.

Discussion

Conventionally women with advanced-stage disease are treated with surgery, chemotherapy and radiation, in one or more combinations. In the setting of recurrent disease, particularly when it is not amenable to surgical resection, the hallmark of therapy has been chemotherapy [2]. Our patient was surgically inoperable and also not eligible for radiotherapy. Hence, combination chemotherapy was the only available option for the treatment.

In the era of modern chemotherapy, the Gynecologic Oncology Group (GOG) has conducted multiple clinical trials in the setting of advanced or recurrent endometrial cancer. These trials showed that the duration of response (progression-free survival) with combination regimens ranged from 5 to 7 months in the recurrent endometrial cancer trials, and unfortunately, these regimens are associated with high morbidity and mortality. Limited success with the traditional therapy certainly demands the need of novel therapeutic agent, which will improve survival without producing additional toxicity.

Various cancers such as head and neck cancer and oesophageal cancer are associated with EGFR overexpression and poor prognosis. Nimotuzumab has been successfully used for the management of these cancers in combination with conventional therapies, providing the survival benefit without adding to toxicity burden.

In the BEST trial, patients with unresectable locally advanced head and neck cancer showed 100% response rate and more than 38 months of survival benefit when given weekly nimotuzumab along with combination chemoradiotherapy as compared to the patients given chemoradiotherapy only [3]. Similar added advantage in tumour response rate and survival have been observed with nimotuzumab in oesophageal cancer, in nasopharyngeal cancer as well as in pancreatic cancer [4–6].

Though no clinical trial-based evidence is available for the role of nimotuzumab in management of endometrial cancer, it could be a choice of targeted therapy considering the poor outcomes with conventional therapies and our experience with nimotuzumab in other cancers associated with EGFR overexpression.

In the current case of recurrent endometrial carcinoma, patient was started with weekly nimotuzumab along with conventional chemotherapy and tumour showed radiologically complete response after 16 weeks. Then, patient was started on maintenance therapy with single agent weekly chemotherapy with weekly nimotuzumab for 19 weeks. No evidence of disease has been detected after following up patient for about 1 year. These results are exceptionally positive in a recurrent case of endometrial carcinoma.

Conclusion

A 55-year-old patient with recurrent endometrial carcinoma responded exceptionally well to the treatment of combination of novel anti-EGFR monoclonal antibody

nimotuzumab with conventional chemotherapy. Patient neither showed any evidence of disease nor had progression of disease after follow-up of more than 1 year. However, should nimotuzumab be routinely included in the management of recurrent endometrial cancer needs to be confirmed with a large randomized clinical trial including several centres.

Acknowledgement Authors would like to acknowledge Dr. Sameer Chaudhari for drafting and editing the manuscript.

Compliance with Ethical Standards

Conflict of interest None.

Research involving Human Participants and/or Animals All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008(5).

Informed Consent The author haven't suggested any personal information that may make the identity of the patient recognizable in any forms of description part, photograph or pedigree. The author have received the consent in writing form.

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