A Study on Different Prognostic Factors in Carcinoma Breast

Dr. Jayant Kumar Desh Deepak	Dr. Dina Nath Prasad
Assistant professor, Department of surgery Jawaharlal Nehru Medical College, Bhagalpur, Bihar	Assistant professor, Department of surgery Jawaharlal Nehru Medical College, Bhagalpur, Bihar

ABSTRACT *Background*: Breast cancer is usually encountered disease. It is the second most common cancer in women leading to death. Prognostic factors of breast cancer not only act as a guide to overall prognosis but also determine the need for adjuvant therapy. These factors are interrelated and hormone receptor status is an important determinant of prognosis of ca breast. Newer factors are being evaluated in an attempt to more precisely define disease related prognosis . *Materials and methods*: This study was done in patients admitted Jawahalal Nehru medical college, Bhagalpur since September 2015 to September 2016. A total of 50 cases were investigated in this period. Proper examination, investigations and treatment were done. Tissue specimens were sent for biopsy in all cases. *Results*: The results were studied statistically and it was found that the usual age of presentation of carcinoma breast was 35-60years, in that 55% had metastasis to axillary group of LNs. Tumour was hormone receptor positive in two third of the patients. Hormone receptor positivity decreased with increase in size of the tumour , axillary lymph node positivity and grade of the tumour. Hormone receptor positivity increased as the age advances and positivity was more in postmenopausal as compared to premenopausal. Axillary lymph node involvement were increased with size of the tumour also increased size of the tumour leads to increase in the grading of the tumour. Majority of patients suffering from carcinoma Breast were multiparous. Post operative treatment in the form of chemotherapy and Tamoxifen was given. *Conclusion*: Small size, low grade and tumours without axillary lymph node metastasis have more chances of receptor positivity. More number of patients are presenting in early stage as majority of patients have operable breast cancer.

INTRODUCTION

Carcinoma breast is the most frequent type of cancer among females. In India, it is the second most prevalent cancer among females after carcinoma of cervix, not only this but it is leading cause of cancer death in women aged 40 to 44 years and second leading cause of cancer death for women overall. The disease occurs almost entirely in women, but men can get it too. The breast is the second commonest site in women which can be affected by cancer. It is reported that the incidence of breast cancer is rising rapidly in India as a result of changes in reproductive risk factors, dietary habits and increasing life expectancy. The available estimates suggest that approximately 75,000 new cases occur in Indian women every year. Numerous clinical studies have demonstrated statistical relationship between certain prognostic factors and two important intervals in the progression of Breast cancer namely the time from initial diagnosis to the first disease recurrence and the time until death from breast cancer. The major risk factors for breast cancer are age, country of birth and family history. Many other acknowledged risk factors can be traced to reproductive events that influence the lifetime levels of hormones. Prognostic factor not only act as a guide to overall prognosis but they may also determine need for adjuvant treatment. Clinical and pathological factors important and useful in progrostication are axillary lymph node status, stage of disease, size of primary tumor, histological grade, oestrogen and progesterone receptor status, lymphatic and vascular invasion, DNA flow cytometry, Sphase fraction, HER-2/new oncogene, cathepsin-D and epidermal growth factor receptor. The most established prognostic factor is the number of positive axillary lymph node based on at least a level I or II axillary dissection and a detailed histologic evaluation.

Tumor size, one of the first prognostic variables accurately quantified, is also a valuable prognostic factor. Tumor size correlates with the number of histologically involved nodes, but has independent prognostic significance. Oestrogen receptor and prognosis : Most studies agree that expression of ER is a marker of favourable prognosis and patients have an overall survival advantage. There is a positive correlation between tumor differentiation, absence of lymph node metastases and positive ER status. Size and type of tumor are also important; smaller tumours and certain histological types, such as lobular carcinoma, are more likely to be receptor positive. ER levels are usually higher and incidences are usually more frequent in postmenopausal patients.

MATERIALS AND METHODS

This study was done in patients admitted Jawahalal Nehru medical college, Bhagalpur since January 2015 to January 2016. A total of 50 cases were investigated in this period. Proper examination, investigations and treatment were done. Tissue specimens were sent for biopsy in all cases. The specimens were sent for detailed gross and microscopic examination to ascertain its size, status of margin, histology of the tumor, lymphnode metastasis etc.

RESULT

Majority of the patients were in the age group of 40-50years, 25 (50%). 40 patients had menopause. 55% had metastasis to axillary group of LNs. Tumour was hormone receptor positive in two third of the patients. Hormone receptor positivity decreased with increase in size of the tumour , axillary lymph node positivity and grade of the tumour. Hormone receptor positivity increased as the age advances and positivity was more in postmenopausal as compared to premenopausal. Axillary lymph node involvement were increased with size of the tumour also increased size of the tumour leads to increase in the grading of the tumour. Majority of patients suffering from carcinoma Breast were multiparous. Post operative treatment in the form of chemotherapy and Tamoxifen was given.

DISCUSSION

In this study the highest number of patients were in the age group of 40-50years, 25 (50%). Studies by Erlandsson G, et al. reported to the found the most favourable prognosis in the 35-49 age group and poorest in patient older than 75 years and younger than 34 years. In study done by Giridhara Rathnaiah Babu, et al. incidence was highest in the age group of 30-40 years and 51-60 years with 61% of patient in this group. The breast cancer cases attained a late age of menopause as compared to the controls. The risk increased in women having a menopause after 49 years . Other studies have also reported increase in risk with late age at menopause . The report in Lancet by Rajesh Dikshit, et al. states, "In women aged 30-69 years, breast cancer affects 10·2% of all cancer mortalities".

CONCLUSION

In present study, highest incidence of carcinoma breast in the age group of 40-50years, 25 (50%). were favourable prognosis was with 35-49 years age group were as age decreased prognosis. Prognosis is better in multiparous women than in nulliparous. Axillary lymph node involvement were increased with size of the tumour also increased size of the tumour leads to increase in the grading of the tumour. Majority of patients suffering from carcinoma Breast were multiparous.

REFERENCES

1. Holmberg L, Ohlander EM, Byers T, Zack M, Wolk A, Bergström R, et al. Diet and breast cancer risk. Results from a population-based, case-control study in Sweden. Arch Intern Med., 1994; (154: 1805-11)
2. Helmrich SP, Shapiro S, Rosenberg L, Kaufman DW, Slone D, Bain C, et al. Risk factors for breast cancer. Am J Epidemiol., (1983; 117: 35-45)
3. Gajalakshmi CK, Shanta V. Risk factors for female breast cancer. A hospitalbased case-control study in Madras, India. Acta Oncol., (1991; 30: 569-74)
4. Rao DN, Ganesh B, Desai PB. Role of reproductive factors in breast cancer in a low-risk area: A case-control study. Br J Cancer, (1994; 70: 129-32)
5. Goel A, Seenu V, Shukla N, Raina V. Breast cancepresentation at a regional cancer centre. The National Med J India, (1995; 8: 6)
6. Devita VT, Hellman S, Rosenberg A. In: Cancer-principles and practice of oncology 6th edn. William and Wilkins. Philadelphia (2001. p. 1687)
7. Stewart B, Kleihues P. World Cancer Report. IARC press Lyon. (2003. p. 191)
8. Gloeckler RLA, Henson DE, Harras A. Survival from breast cancer according to tumor size and nodal status. Surg Oncol Clin N Am (1994;3:3553)
9. Elston CW, Greshan GA, Rao GS. The cancer research campaign trial for early breast cancer pathological aspects.Br J Cancer (1982;45:655-69)
10. Christopher DM, Fletcher R. Diagnostic Histopathology of Tumors, second edition. Churchill Livingstone London 2000;2:902.
11. Knight WA, Livingston RB, Gregory EJ, McGuire WL. Estrogen receptor as an independent prognostic factor for early recurrence in breast cancer Cancer Res (1977;37:4669-71).
12. Scarff RW, Torloni H. Histological typing of breast tumors. International histological classification of tumours,. World Health Organization, Geneva (1968;2:13-20)
13. Bloom, H.J. and Richardson W.W. Histological grading and prognosis in breast cancer. Br. J. Cancer, (1957;11: 359-377)
14. Elston, C.W. The assessment of histological differentiation in breast cancer. Aust N Z J Surg (1984; 54, 11-5)
15. Elston CW, Ellis IO. Pathological prognostic factors in breast cancer. I. The value of histological grade in breast cancer: experience from a large study with long-term follow-up. Histopathology(1991;19:403-10)