



Chemotherapy-Induced Secondary Amenorrhea in Breast Cancer Patients in Gheam and Omid Hospital

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Objective :

- The objective of this study was to investigate the impact of chemotherapy-induced secondary amenorrhea in breast cancer patients and its relation to courses and type of chemotherapy agents.

Materials and Methods:

- We conducted a descriptive cross-sectional analytic study during eight years (1997-2005) in oncologic department of Ghaem and Omid hospitals of Mashhad University .

Trial group were 120 pre menopausal patients had received then these patient divided to three groups .

- Chemotherapy agents cyclophosphamide ,

For first group .metotherexate and fluoroucil (CMF) recommended versus

In second group who them were user cyclophosphamide adriamycine and fluoroucil (CAF)

Third group who received adriamycine and cyclophosphamide (AC)

- Menstrual cycle status during treatment and in follow-up periods in these selected patients had recorded .Non of these patients used tamoxifen .

- We evaluated different criteria included: menstrual cycle status before and after chemotherapy.
- Incidence of secondary amenorrhea and correlation between amenorrhea with types .
- Courses of chemotherapy agents .

- Statistically analysis using the SPSS software was performed and T-Test and χ^2 used for comparative evaluation and $P < 0.05$ considered significant .

Results :

- Data on 120 patients was defined that the age of 58.3% of them were < 40 years old.
- Majority of pathological type of breast cancer patients were , ductal carcinoma . The most common type of chemotherapy regimen were CMF , CAF and AC.

- The average number of chemotherapy courses in CMF group was 6.2 ± 2.6 , in CAF group was 7.2 ± 0.6 and in AC group was 6.4 ± 0.5 (P=0.3) .
- Chemotherapy induced secondary amenorrhea established in 74.1% of patients , this finding was more common in patients > 40 years old .

- Duration amenorrhea was between 2.3-4 years , but this data was not statistically significant ($P=0.5$). According to statistical .
- The incidence of amenorrhea in CMF group was 72.5% and in CAF group was 71.4% and in AC group was ($P=0.6$) .Although this finding was positive between amenorrhea and courses of chemotherapy ($P=0.03$).

Conclusions :

- In premenopausal patients with breast cancer demonstrated chemotherapy had cytotoxicity against tumor cell and yielded amenorrhea due to ovarian failure .

Table 1: distrubiation age in patients

AC		CAF		CMF		Drag
	N	%	N	%	N	Age
4.44	8	4.72	21	54.9	28	40-20
50	9	1.24	7	45.1	23	41-49
6/5	1	4.3	1	0	0	50-51

Table 2: incidence of Amenorrhea in patients

AC		CAF		CMF		Drug Amenorrhea
%	N	%	n	%	N	
83.3	15	71.4	20	72.5	38	+
16.7	3	28.6	8	27.5	14	-

A dense and colorful bouquet of autumn flowers. The arrangement features large, multi-petaled dahlias in shades of orange, red, and yellow. Interspersed among them are bright yellow sunflowers with dark brown centers, and numerous purple and white daisies. The background is filled with smaller purple and white flowers, creating a rich, textured floral display.

Thank
you