MASCC 7-0533 Effectiveness and Safety management of Dose-Dense Anthracycline and Cyclophosphamide (ddAC) with Pegfilgrastiom for Japanese Breast cancer patients

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Introduction

Chemotherapy induced febrile neutropenia (FN) causes not only increase of infection risk, but also reduction of relative dose intensity (RDI) in chemotherapy effects. From November, 2014, the use of pegfilgrastim in dose dense chemotherapy for breast cancer patients has approved in Japan. Our institute started to use pegfilgrastim from January, 2015. We examined effectiveness and safety management of dose-dense anthracycline and cyclophosphamide(ddAC) with pegfilgrastim.

Materials and Methods

From January 30th, 2015 to January 30th, 2017, 26 breast cancer patients received ddAC with pegfilgrastim . We examined their cancer subtypes, age, RDI, tumor reduction effect, side effects, WBC counts during the chemotherapy.

Patients characteristics

		(n)
Age	33-69(mean 48.3)	
Menopose	Pre	17
	Post	9
Chemotherapy	NAC	16
	Adj	9
	Rec (NAC)	1
ER	+	18
	-	8
PgR	+	15
	-	11
HER2	+ (2+DISH+)	5
	-	21
Ki-67 30%	Over	7
	Under	9
	Uncertain	8
Pathological type	Sci	7
	Solid-tub	3
	Pap-tub	3
	Others	11
LN metastasis	+	17
	-	8
G-CSF injection timing (after chemotherapy)	Day1	23
	Day2-4	3

Table 1. patients characteristics

Most of the patients received “ddAC” as a neo adjuvant chemotherapy.
Premenoposal, lymph node positive patients tend to receive ddAC with pegfilgrastim.

Response analysis

	N=16
CR(complete response)	6
PR(partial response)	4
SD(stable)	6
PD(progression)	0

Table 2. ddAC response as neo adjuvant chemotherapy

16 cases of ddAC was treated as NAC, more than half of them showed a reduction effect of primary tumor and axillary lymph node metastasis, and in 6 cases were CR.

Modification of chemotherapy

	Day1(n=23)	Day2-4(n=3)
Dose modification	0	0
Discontinuation	2	0
Postponement	4	0
Postponement Administration period 2 times or more 1 course	 0 4 (fever, CRP↑)	

Table 2. dose modification

Some patients forced to reduce or postpone the treatment due to fever (not FN), rising CRP.

Transition of WBC counts

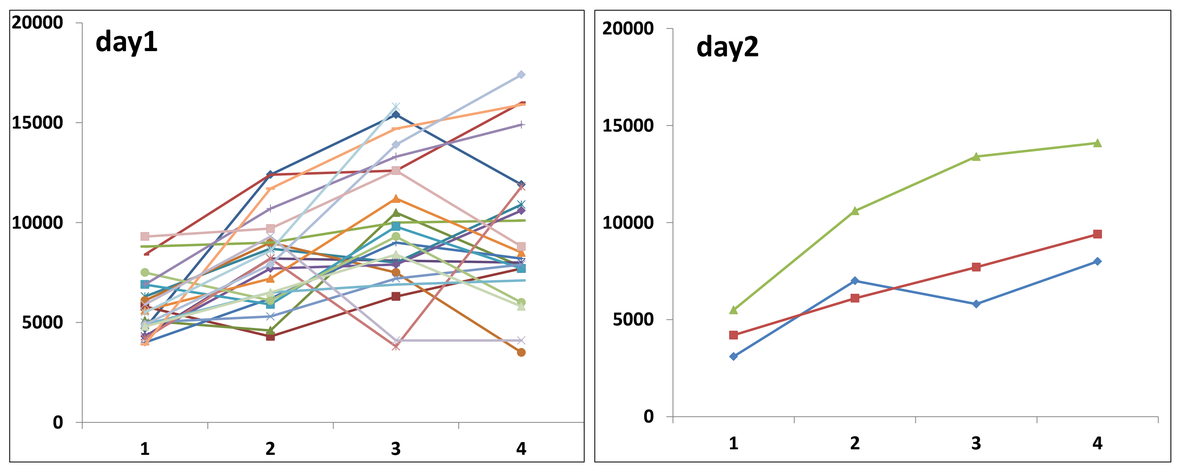

Figure 1. WBC counts during ddAC

The WBC count was gradually increasing during the course of ddAC. In the “Day 1” G-CSF administration cases, WBC exceeding 10000 / μl were observed in the second and subsequent courses.

Adverse events

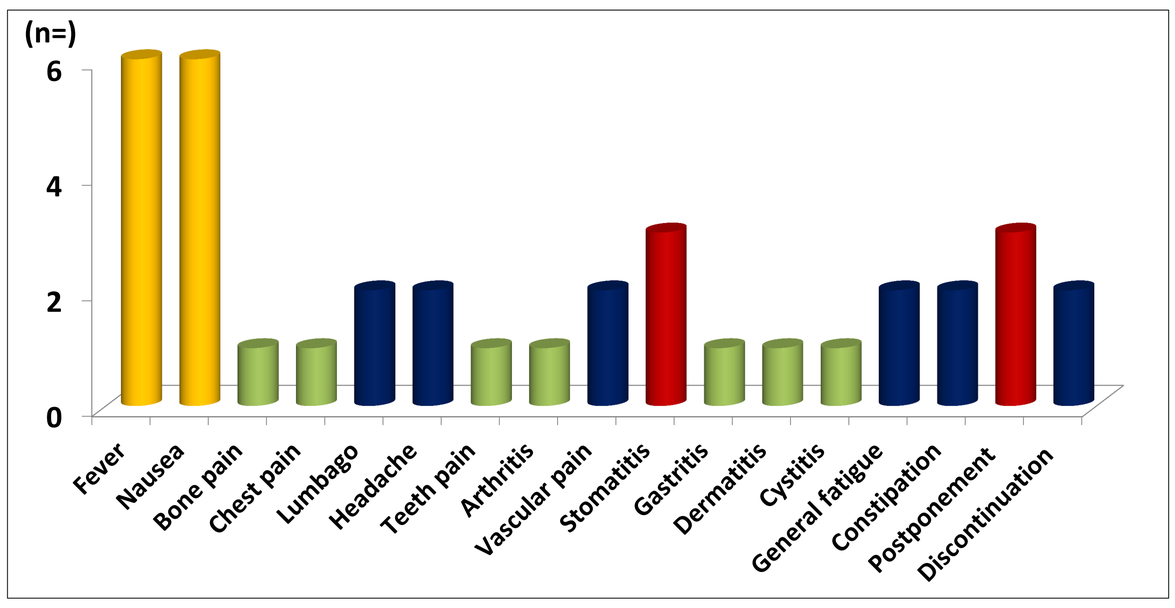

Figure 2. adverse events

Fever, nausea and mucosal damage were observed, Grade 3 and above side effects were not observed. No FN cases were seen. Appearance of side effects after administration of G-CSF were mostly fever, arthritis, and bone pain.

Conclusions

Dose dense AC with pegfilgrastim was thought to be well tolerated regimen without serious adverse events.
Among NAC patients, 10 showed tumor shrinkage effects. During the course of treatment, no patients had FN, but some patients had symptoms of arthralgia who had leukocytosis.
It was suggested that the administration timing of pegfilgsrastim was affected.
In some cases, fever and bone pain due to administration of G -CSF were ovserved, therefore it is recommended to prescribe analgesics in advance.

COI

There is no conflict of interest to disclose concerning this poster presentation.