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Research Article

ASSESSMENT OF TOXIC COMPLICATIONS OF CHRONOCHEMOTHERAPY IN THE TREATMENT OF MALIGNANT TUMOR DISEASES

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Karimov M.A.
Namangan State University, Faculty Of Medicine, Uzbekistan, Namangan, Uzbekistan

Makhmudova R.Y.
Kosonsoy Abu Ali Ibn Sino Public Health Technical University, Namangan, Uzbekistan

Abduraimova R.A.
Kosonsoy Abu Ali Ibn Sino Public Health Technical University, Namangan, Uzbekistan

O'rinboev M.R.
Kosonsoy Abu Ali Ibn Sino Public Health Technical University, Namangan, Uzbekistan

Beknazarov A.T.
Kosonsoy Abu Ali Ibn Sino Public Health Technical University, Namangan, Uzbekistan

Nurkabilov O.T.
Kosonsoy Abu Ali Ibn Sino Public Health Technical University, Namangan, Uzbekistan

ABSTRACT

the Andijan regional oncology dispensary analyzed the 120 patients on the "D" account for the side effects observed after chemotherapy and chronochemotherapy treatments. In 80-90% of patients receiving chemotherapy, different manifestations of side effects are observed. The observation of these toxic complications is explained by the effect of the cytostatic drug on typical cells.

KEYWORDS

Chemotherapy, chronochemotherapy, toxic complications.

INTRODUCTION

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Improving the effectiveness of treatment and preventive measures in modern medicine remains one of the pressing problems of Medicine [17]. This can be done by a chronobiological method in the conservative treatment of patients in finding a future solution to the problem [7, 9, 11, 13, 14].

There are several methods of treating malignant tumor diseases, within which treatment with cytostatic drugs is widely used. In chemotherapy, the therapeutic result is always manifested along with a number of side effects, and these conditions are explained by the cytostatic effect of the cytostatic drug on the malignant tumor cell in the oranism and the cytostatic effect on the normal cell. In 80-90% of patients, different manifestations of side effects are observed after chemotherapy [18].

Currently, it has been found that a huge number of physiological processes that are carried out in the human body change during the day [10, 17, 21], but in the literature we studied, the data on the use of cytostatic drugs in oncology based on biological rhythms has been little studied.

The first to record in science was the English writer John Wren in 1632 in his work "Herbal Treatise", which records daily rhythms [3]. By the end of the XIX century, the science of daily rhythms began to be used in science, such as biorhythmology, the administration of drugs to the body based on daily rhythms, and the study of pharmacokinetics and pharmacodynamics of the drug – chronopharmacology, the treatment based on daily rhythms-chronotherapy.

In recent years, chronopharmacology has been studied in all areas of Medicine [4], but the literature has provided very little data on chemotherapy based on daily rhythms in the treatment of oncological diseases. Chronochemotherapy is a section of chronotibbiot aimed at increasing the effectiveness of chemiopreparate and reducing its side effects, using cytostatic drugs based on the daily rhythm (circadian) [1, 2]. Chronochemotherapy increases the cytostatic effect of chemiopreparations and reduces the side effects, complications of the drug [12, 15].

Chemotherapy based on biorhythms in oncology has been shown to prolong the survival of patients by 2 times, increase the effectiveness of treatment by 1.5-2 times, and reduce poisoning by the body[5, 8, 20, 21].

The data presented in the literature indicate that in typical (normal) cells according to biological rhythm, the metabolism of substances actively occurs during the day, while in the evening, on the contrary, the metabolism slows down [16]. The exchange of substances occurs equally actively at all times of the day, bypassing the law of the cancer cell (atypical cell) biorhymt, and the mitotic cycle of the atypical cell occurs precisely at night [19]. The literature reports that different antiblastic effects were obtained when the same dose of cytostatic drugs was used at different times of the day and side effects were partially reduced. This condition is explained by the fact that the mitotic cycle of the atypical cell occurs at night [6, 20].

The purpose of the work: to diagnose toxic complications based on chronopharmacology of cytostatic drugs used in the treatment of malignant tumor diseases.

Material and examination methods: 120 patients treated during the period 2012 – 2022, who were counted" D "in the Andijan regional oncology dispensaries, were examined according to the" standard for the treatment and examination of malignant tumor diseases " and received ad'yuvant, neoad'yuvant or symptomatic chemotherapy treatments.

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All patients were subjected to extended general blood analysis, general urine analysis, biochemical blood analysis (bilirubin, transaminase, creatinine, mochevina, nitrogen mochevina), UTT and ECG examinations before treatment with the chemotherapy method, and appropriate schemes were selected in accordance with the treatment standard of cytostatic drugs and performed in the same way as traditional chemotherapy doses. General blood and urine analyses were seen repeatedly after chemotherapy treatments were completed. According to the above nazology, MAYO, FOLFOX, HELOX schemes, ver or er schemes in germ cancer, MAYO, FOLFOX – 4, HELOX schemes in colon cancer, PF Scheme in sub-lingual area cancer, PF Scheme in bacadaon neck cancer, CAF, CMF schemes in mammary cancer were selected.

Table 1

Distribution of patients by groups with respect to the nosological and disease stage

№	Disease nazology	group	n	Stage of the disease					
				II		III		IV	
				n	%	n	%	n	%
1	Colon cancer	I	**20**	0	0	15	75,0	5	25,0
		II	**17**	2	11,8	11	64,7	4	23,5
2	Rectal cancer	I	**18**	0	0	12	66,7	6	33,3
		II	**15**	3	20,0	8	53,3	4	26,7
3	Cervical cancer	I	**2**	0	0	0	0	2	100,0
		II	**14**	2	14,3	7	50,0	5	35,7
4	Germ cancer	I	**11**	2	18,2	7	63,6	2	18,2
		II	**9**	3	33,3	4	44,4	2	22,2
5	Ovarian cancer	I	**0**	0	0	0	0	0	0
		II	**5**	0	0	3	60,0	2	40,0
6	Breast cancer	I	**6**	1	16,7	5	83,3	0	0
		II	**0**	0	0	0	0	0	0
7	Pancreatic cancer	I	**3**	0	0	0	0	3	100,0
		II	**0**	0	0	0	0	0	0
Total		***I***	***60***	**3**	**5,0**	**39**	**65,0**	***18***	**30,0**
		II	***60***	***10***	**16,7**	**33**	**55,0**	**17**	**28,3**
Total			**120**	**13**	**10,8**	**72**	**60,0**	**35**	**29,2**

Group 1 consisted of 60 patients – "D" in the regional oncology dispensaries and performed ad'yuvant, neoad'yuvant or symptomatic chemotherapy treatments in the evening (at night). Chrono chemotherapy procedures were performed on 20 (33.3 %), germ cancer – 11 (18.3 %), colon cancer – 18 (30 %), breast cancer – 6 (10 %), sub – lingual cancer – 3 (5 %), cervical cancer – 2 (3.33 %) patients. Of the patients, 22

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(36.7 %) were female and 38 (63.3 %) were male. 3 (5 %) of patients received treatment in Phase II, 39 (65 %) received treatment in Phase III and 19 (10 %) received treatment in Phase IV of the disease (Table 1).

Group 2-60 patients who are counted "D" in regional oncology dispensaries have been examined and undergo ad'yuvant, neoad'yuvant or symptomatic chemotherapy treatments. In terms of the nosological composition of the patients, 17 (28.3%) patients with colon cancer – 9 (15 %), colon cancer – 15 (25 %), ovarian cancer – 5 (8.3 %), cervical cancer – 14 (23.3 %) patients underwent conventional chemotherapy. 27 of the patients (45 %) were female and 33 (55%) were male. 3 (5%) of patients received treatment in Phase II, 39 (65 %) received treatment in Phase III and 19 (10 %) received treatment in Phase IV of the disease (Table 1).

RESULTS AND THEIR DISCUSSION

Treatment for Group 1 patients was done using chronochemotherapy. In this case, one of the schemes of the treatment standard was selected, and the drugs were poured into the body in the evening (after dinner).

In 2 groups of patients, one of the schemes of the standard of treatment was selected, and drugs were poured into the body during the day.

All patients after murolaja side effects were studied based on the general poisoning criterion assessment table established by the World Health Organization as a whole (table 2).

2 table.

Side effects observed in patients receiving chemotherapy and chrono chemotherapy and their degree of poisoning

№	Characters		Poisoning rate									
			0		I		II		III		IV	
			N	%	n	%	n	%	n	%	n	%
1	Anorexia	I	2	6,4	8	25,8	12	38,7	9	29,1	0	0
		II	0	0	5	15,6	7	21,8	18	56,3	2	6,3
2	Nausea	I	0	0	10	27,0	19	51,3	8	21,7	0	0
		II	0	0	2	5,3	24	63,2	12	31,5	0	0
3	Vomit	I	0	0	9	60,0	5	33,3	1	6,7	0	0
		II	0	0	4	22,2	8	44,4	5	27,8	1	5,6
4	Zarda	I	7	31,8	10	45,5	3	13,6	2	9,1	0	0
		II	4	14,4	14	50,0	5	17,8	5	17,8	0	0

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5	Stomatitis	I	1	12,5	6	75,0	1	12,5	0	0	0	0
		II	0	0	10	83,4	1	8,3	1	8,3	0	0
6	Taste disorders	I	11	55,0	7	35,0	2	10,0	0	0	0	0
		II	8	36,4	10	45,4	4	18,2	0	0	0	0
7	Diarrhea	I	5	62,5	2	25,0	1	12,5	0	0	0	0
		II	5	50,0	3	30,0	2	20,0	0	0	0	0

Group 1 patients experience anorexia at 51.6 %, nausea at 61.7 %, vomiting at 25 %, dice at 36.6 %, stomatitis at 13.3 %, taste disorders at 33.3%, and diarrhea at 13.3%.

Group 2 patients experience anorexia at 53.3 %, nausea at 63.3 %, vomiting at 28.3 %, dice at 46.6 %, stomatitis at 20 %, taste disorders at 36.6%, and constipation at 16.6%.

Table 2 shows that all side effects showed a milder extent in Group 1 patients compared to Group 2 patients.

CONCLUSION

The result of scientific research showed that patients undergoing chronochemotherapy treatments had a lower and milder level of body poisoning of 1.11 marotiba according to traditional chemotherapy.

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