NOWOTWORY Journal of Oncology • 2001 • volume 51
Number 5 • 494–498

Delays in the commencement of cancer treatment

Marek Pawlicki, Barbara Rysz-Postawa

Introduction. A considerable percentage of patients commence the treatment in an advanced stages of malignant diseases. The aim of this study is to examine the reasons for treatment delay in cancer patients admitted to our Institute in the year 2000 and to compare this to the results of previous study conducted in 1987/88.
Patients and methods. The study was performed on 204 cancer patients aged 17-82 (mean 49 years) treated in the Medical Oncology Department and Outpatient Clinic of the Cancer Institute in Krakow. A questionnaire with questions and options concerning the first symptoms, time of presentation and eventual use of unconventional methods of therapy was used as an interview guide. Additionally, demographic data, physician's procedure data and clinical stage at the presentation were obtained from case records.
Findings. More than a half of patients (58%) had an advanced stage of disease at presentation. Patient-related delay was found in 31% of cases, and the mean time of this delay was 9 months. Nine percent of patients came to a physician after mean delay of 12 months because initially they preferred to use unconventional methods of therapy. Physician-related delay in referring a patient to oncological hospital occurred in 35% of cases, and the mean time of this delay was 14 weeks. The mean delay of the beginning of treatment in our Institute because of system error was 8 weeks and was found in 5% of cases. When compared with the results of our previous research conducted in 1987/88, an increase in the percentage of patient-related and physician-related delays can be noticed, however the delay times were shorter. The patients turn to unconventional methods of therapy less frequently but the mean time of delay is longer. The "system delay" is a slightly bigger in the present study.
Conclusions. 1. Early diagnosis is still a main goal in improving late results of treatment. 2. Patient-related delays are still frequent, despite numerous educational media campaigns. 3. No signs of improvement are observed after the recent health-care reforms. 4. An intensive education of family doctors is urgently needed. 5. A wide campaign against unconventional methods of treatment is required.

Badanie nad przyczynami opóźnień w rozpoczęciu leczenia chorych na nowotwory złośliwe

Wstęp. Poprawa składu klinicznego chorych na nowotwory jest najtańszą i najszybszą metodą poprawy wyników leczenia nowotworów. Niestety znaczący odsetek chorych rozpoczyna specjalistyczne leczenie w zaawansowanych stadiach choroby.
Cel pracy. Celem pracy jest analiza przyczyn opóźnień w leczeniu specjalistycznym chorych na różne nowotwory, przyjętych do Instytutu Onkologii w Krakowie po 1 stycznia 2000 r. w porównaniu do wyników badania przeprowadzonego w roku 1987/88 w analogicznej populacji pacjentów.
Materiał i metoda. Badaniem objęto 204 chorych w wieku 17-82 lat (średnia 49 lat), z rozpoznanym nowotworem złośliwym, leczonych w Klinice Chemioterapii i/lub Ambulatorium Instytutu Onkologii w Krakowie. W badaniu posłużono się specjalnie skonstruowanym kwestionariuszem, zawierającym pytania dotyczące początku objawów choroby, czasu zgłoszenia się do lekarza pierwszego kontaktu oraz stosowania niekonwencjonalnych metod leczenia. Dodatkowo z dokumentacji medycznej pacjentów uzyskiwano informacje o postępowaniu diagnostyczno-leczniczym lekarza pierwszego kontaktu i stopniach zaawansowania procesu nowotworowego w chwili rozpoznania.
Wyniki. Ponad połowa chorych (58%) w chwili rozpoznania miała zaawansowany proces nowotworowy. Winę chorego w opóźnionym zgłoszeniu się do lekarza stwierdzono w 31% przypadków, a czas trwania opóźnienia wynosił średnio 9 miesięcy. 9% pacjentów zgłosiło się do lekarza z opóźnieniem średnio 12 miesięcy, spowodowanym stosowaniem niekonwencjonalnych metod terapeutycznych. Opóźnienie z winy lekarza pierwszego kontaktu w skierowaniu chorego do specjalistycznego ośrodka onkologicznego stwierdzono w 35% przypadków i wynosiło ono średnio 14 tygodni.
Z przyczyn organizacyjnych leczenie w IO rozpoczęto ze średnim opóźnieniem 8 tygodni w 5% przypadków. W porównaniu do wyników analogicznego badania, przeprowadzonego w latach 1987/88, stwierdzić można wzrost odsetka opóźnień zarówno

Department of Chemotherapy
The Maria Skłodowska-Curie Memorial Cancer Center
and Institute of Oncology, Cracow, Poland

z winy chorego, jak i lekarza pierwszego kontaktu, przy jednoczesnym skróceniu czasu opóźnienia. Obecnie chorzy rzadziej korzystają z niekonwencjonalnych metod leczenia, ale opóźnienie w leczeniu specjalistycznym jest dłuższe. Opóźnienie wynikające z przyczyn organizacyjnych jest obecnie nieco dłuższe.
W n i o s k i. 1. Usprawnienie wczesnej diagnostyki jest najskuteczniejszym i najbardziej ekonomicznym sposobem poprawy odległych wyników leczenia. 2. Pomimo licznych akcji prozdrowotnych, organizowanych w ostatnich latach, grupa chorych zgłaszających się z opóźnieniem do lekarza pierwszego kontaktu jest duża. 3. Wprowadzenie zmian w organizacji służby zdrowia nie przyniosło dotychczas spodziewanej poprawy w szybkiej diagnostyce. 4. Konieczna jest dalsza, prowadzona w sposób obligatoryjny, intensyfikacja szkoleń lekarzy rodzinnych w zakresie prawidłowego postępowania w przypadku podejrzenia choroby nowotworowej. 5. Krytyczna interpretacja publikacji oraz programów medialnych i prasowych, poświęconych niekonwencjonalnym metodom postępowania, może ograniczyć częstość stosowania tych metod przez chorych na nowotwory.

Key words: cancer treatment delay, unconventional methods, diagnostic errors
Słowa kluczowe: opóźnienie leczenia, medycyna niekonwencjonalna, błędy w diagnostyce i leczeniu

Introduction

Early diagnosis is the cheapest and, as the examples of Scandinavian countries prove, the fastest possible method of improving neoplasm treatment results. Compared with the investment in scientific research, equipment, personnel, etc., it is also the most feasible measure in terms of economy. The cost of curing a patient in an advanced phase of disease, as well as during the palliative treatment period, is approximately 8 times higher than treatment cost at early stages.

The research on the reasons for delays in the commencement of malignant neoplasm treatment has been conducted in the Medical Oncology Clinic of our Cancer Institute in Krakow for many years [1-6]. A reform of healthcare system was launched in Poland in 1999, aimed particularly at improving the availability of first-contact doctors. At the same time, several pro-health projects were initiated to raise the awareness of health education in the society.

The aim of present study is to examine the reasons for special treatment delay in cancer patients admitted to our Institute in the year 2000. Treatment delay was divided into patient-related delay, physician-related delay and system-related delay (according to WHO division). The results were compared to the findings of previous study conducted in 1987/88 [7].

Patients and methods

The study was performed on cancer patients treated in Medical Oncology Department and Outpatient Clinic in Memorial Cancer Institute in Krakow. A printed questionnaire with questions and options concerning the first symptoms, time of presentation and using unconventional methods of therapy was used as an interview guide. Demographic data, physician's procedure data and clinical stage at presentation were obtained from the case records. The study was conducted in group of 204 patients in age 17-82 (mean 49 years). In Table I clinical profile and demographic characteristics of patients is included.

Table I. Clinical and demographic profile of patients

	number of patients	percentage
women	122	60%
men	82	40%
education:		
elementary	94	46%
secondary	49	24%
higher	51	25%
students	10	5%
diagnosis:		
epithelial cancers	153	75%
lymphatic neoplasm	37	18%
soft tissue neoplasm	10	5%
malignant melanoma	4	2%

Findings

In 86 (42%) cases not advanced cancer process was diagnosed (stage I – 21, stage II – 65 cases). In majority of cases (118 patients – 58%) advanced neoplastic disease was present. Radical cancer treatment was proposed in 139 (68%) cases, the remaining 65 patients received only palliative treatment.

Table II shows the data concerning the reasons and time of delay obtained in present study.

141 patients (69%) came to the first-contact physician earlier than 3 months since the first symptoms of di-

Table II. The reasons and time of treatment delay

reasons of delay	percentage	time of delay	mean	medium
patient delay	31%	3 – 60 months	9 m	6 m
physician delay	35%	5 – 56 weeks	14 weeks.	9 weeks
unconventional methods	9%	2 m. – 6 years	12 m	7 m
system delay	5%	5 – 12 weeks	8 weeks	6 weeks
no delay	28%	-	-	-

sease had occurred (according to WHO criteria with no delay). 86 patients (42%) came to the physician in 4 weeks time. In this group of patients 3 persons with accidental diagnosis of cancer during periodic examinations are included (1 chest x-ray, 2 mammography).

Six patients of the no delay group of patients resigned the oncological consultation and treatment after the diagnosis of cancer was established. All of them could receive radical cancer treatment. Two patients came to oncologist after about 1 month and this delay did not cause progression of clinical stage. One person came again to a physician after 6 months with progressive disease. The remaining 3 patients were using unconventional methods of therapy for over 12 months. The first patient was intaking herbal medicines and took part in several bioenergy therapeutic sessions. The second patient was intaking Vilca cora. The third person was using herbal compress and ointments for 5 years. In these cases the disease progressed with no chance for radical treatment.

With delay over 3 months (3 to 60 months; mean 9, medium 6 months) since the first symptoms had occurred 63 patients (31%) came to physician. 14 patients (7%) for over 1 year observed progressing symptoms of disease. Table III shows the relation between clinical stage and patient delay.

Table III. The influence of patient–related delay on clinical stage

clinical stage	number of patients	
	no delay	delay of 3–60 months (mean 9 m.)
not advanced (stage I+II)	68	20
advanced (stage III+IV)	73	43
sum	141	63

In Table IV reasons of delay declared by patients are shown.

Table IV. The reasons of patient–related delay

reason of delay	number of patients
symptoms disregard	43
fear	29
unconventional methods	18
lack of time	5
lack of money	1
stay abroad	1

In 18 cases (9%) using unconventional methods of therapy was the reason of delay of 2 to 36 months (mean 12, medium 7 months). The details are shown in Table V.

Another 16 patients were using unconventional methods during oncological treatment with no break in specialistic treatment. They were intaking herbal preparation for 12 to 18 months (10 patients), moreover they were taking part in bioenergy therapeutic sessions for 3 month on average (8 patients). Totally 34 patients (17%) were using unconventional methods of therapy.

No relation between delay and age or education was detected.

Physician delay in referring a patient to oncological hospital occurred in 71 cases (35%). The time of delay was 5 to 56 weeks (mean 14, medium 9 weeks). Table VI shows reasons of physician delay.

The start of treatment in Oncological Institute was delayed for 5 to 12 weeks (mean 8, medium 6 weeks) in 11 cases (5%) because of system error. The reason for this delay was waiting for computed tomography and for radiotherapy.

Table V. Delay related to unconventional methods use

the method	number*/	percentage	time of use
bioenergy therapy	12	6%	1–36 m.
herbal medicines	17	9%	2–18 m.
Vilca cora	4	2%	6–18 m.
mineral preparation, touchwood	2	1%	4–10 m.
compress, heating	4	2%	10–72 m.
sum	18	9%	2 – 72 (mean 12 months)

* the sum of cases in the table is greater than total number of patients in study because of using several methods by one person

Table VI. Physician–related delay

reason of delay	number/percentage of pts		time of delay (in weeks)
diagnostics examination	24	12%	5–24
wrong diagnosis	29	14%	5–48
wrong treatment	18	9%	5–56
sum	57	35%	mean 14 weeks

The present study is a successive one of the cancer treatment delay conducted in Medical Oncology Clinic. Table VII includes the comparison of present findings with results of study conducted in the years 1987/88 on 433 – cancer patients group treated in the clinic.

An increase in percentage of patients (almost twice) and physician delay can be noticed simultaneously to shortening of the delay time. Despite of many educational programmes a numerous group of patients still disregards typical symptoms suggesting neoplastic disease like breast tumor, breakthrough bleeding, dysuria or atypical nevi. The group of patients using unconventional methods of therapy is not so numerous as previously but unfortunately the time of delay is currently longer. It seems that not every patient using unconventional methods of therapy admits it. Probably it is for fear of condemnation of such action. This is very disadvantageous because it may make difficult interpretation of chemotherapy adverse events caused by potential medicines interaction. The question about the use of unconventional methods of therapy should become a routine part of taking history.

Commentary

The fact that radical treatment cannot be applied to a majority of patients in advanced stages of the disease not only affects their life but also dramatically boosts the costs of therapy. In order to find an explanation for the untoward clinical profile research has been conducted in the Medical Oncology Clinic for many years in line with a standardised programme where so-called delay time is assessed based on WHO criteria. The objective of the research is both to identify the reasons for the unsatisfactory clinical profile and to track the changes of the degree of the delay over the years.

As in other European countries, the current research confirms the continuously high proportion of patients who due to low awareness or, as recently evidenced, for want of confidence in successful treatment see doctors late, with the delay reaching 9 month on average. This is very long if you bear in mind that the World Health Organisation considers a delay of up to 3 months from the moment the first symptoms are observed to consultation with a doctor to be standard. Assuming that for a majority of neoplasm types 3 months of delay mean progression by one degree, the largest group of the 'late patients', i.e. 31%, miss their chance of radical treatment. This group has risen proportionally as compared to the years 1987/88 (see Table VII). This serves as evidence of a still unsuccessful information campaign in the society and of ineffectiveness of sporadic, frequently unprofessional statements published in the media by doctors who tend not to be knowledgeable enough.

Also, the percentage of misdiagnosed patients has gone up slightly (38.9% as compared to 35%). However, the observation time has shrunk from 7.2 months in the years 1987/88 to 3.5 months in 2000. This high percentage results from first-contact doctors' insufficient education in oncological diagnosis, as well as from drawn-out diagnostics, e.g. ultrasound, tomography, etc. in order to evaluate 'whether the suspicious lesions progress'.

Notably, for every tenth patient the reason for a late referral to an oncologist is the dragging out of otherwise correctly conducted diagnosis as a result of organisational constraints in local surgeries. Unfortunately, in every forth case the diagnosis and therapeutic procedure were incorrect. What is important is that most of the patients in this group consulted a doctor with no delay on their part. In three cases a general practitioner refused to carry out in-depth diagnosis or to refer a patient to a specialist on the account of limitations in the financing by Patients' Funds.

The proportion of patients who had taken 'natural therapy' prior to consulting a doctor has decreased. Yet still every forth patient who had completed or was going through oncological treatment had used non-medical sources for consultation, phytotherapy being recently the most popular of them. The drop in the number of patients using 'unconventional medicine' before specialist treatment stems mostly from the fact that a lot of bioenergy therapists refuse to administer therapy in lieu of oncological treatment.

The number of cases where the delay was an effect of inefficient organisation of the health care system has gone up, to a large measure due to a long waiting time for diagnostic examinations, operations or irradiation. In 2000 the proportion of patients served with no delay dropped in relation to the years 1987/88.

Table VII. Cancer treatment delay in the years 1987/88 and 2000

delay	year of study	percentage of pts (%)	mean time of delay
patient–related delay	1987/88	15,9	14,8 m
	2000	31	9 m
physician–related delay	1987/88	28,9	7,2 m
	2000	35	3,5 m
unconventional–related methods	1987/88	25,4	5,7 m
	2000	9	12 m
system error	1987/88	3,9	5,4 weeks
	2000	5	8 weeks
no delay	1987/88	38,8	-
	2000	28	-

The research conducted does not cover all the patients of the Memorial Cancer Institute. Nevertheless the group of subjects was representative for the entire population, and the research method remained the same in the following years.

Conclusions

1. Early diagnosis is still a main goal in improving late results of treatment.
2. Patient-related delay are still frequent, despite numerous educational media campaigns.
3. No signs of improvement are observed after the recent health-care reforms.
4. An intensive education of family doctors is urgently needed.
5. A wide campaign against unconventional methods of treatment is required.

Marek Pawlicki M.D., Ph.D.
Department of Chemotherapy
The Maria Skłodowska-Curie Memorial Cancer Center
and Institute of Oncology
Garncarska 11
31-115 Cracow
Poland

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Paper received: 6 July 2001
Accepted: 21 August 2001