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Przyczyny opóźnień leczenia chorych na nowotwory złośliwe w województwie podkarpackim

Streszczenie

Wstęp. W przypadku pacjentów onkologicznych kluczową sprawą jest odpowiednio wczesne wdrożenie postępowania leczniczego. Wszelkie opóźnienia występujące na poszczególnych etapach procesu diagnostyczno-terapeutycznego mogą mieć wpływ na przeżywalność chorych. Eliminując ich przyczyny można doprowadzić do zmniejszenia czasowego wymiaru opóźnień a tym samym zwiększyć odsetek nowotworów wykrytych we wczesnym stadium oraz poprawić rokowanie.

Cel. Podstawowym celem pracy była identyfikacja głównych przyczyn opóźnień leczenia pacjentów onkologicznych. Dodatkowym celem było ustalenie źródeł pozyskiwania przez nich informacji na temat profilaktyki zdrowotnej.

Materiał i metody. Badaniem objęto 108 osób leczonych w systemie stacjonarnym w dwóch specjalistycznych ośrodkach onkologicznych na terenie Podkarpacia. Metodę stanowił sondaż diagnostyczny a wykorzystaną techniką było badanie ankietowe przeprowadzane w formie bezpośredniego wywiadu standaryzowanego.

Wyniki. Spośród powodów opóźnień leżących po stronie pacjenta najczęściej wymieniane były: nieznajomość objawów mogących sugerować nowotwór oraz lekceważenie objawów. 81% ankietowanych podało więcej aniżeli jedną przyczynę. Spośród wszystkich respondentów 84% nie zna objawów mogących sugerować występowanie choroby nowotworowej, 98% uważa, że potrzebne są akcje propagujące ten zakres wiedzy a najwyżej ocenianym źródłem informacji jest lekarz POZ.

Wnioski. Najliczniejszą grupą przyczyn opóźnień leczenia nowotworów są te, które leżą po stronie pacjenta i one też powodują najdłuższy średni czas zwłoki. Opóźnienia leczenia leżące po stronie organizacji systemu opieki zdrowotnej wydają się być relatywnie mniejszym problemem niż te obecne po stronie pacjenta. Za najbardziej rzetelne źródło pozyskiwania informacji na temat profilaktyki onkologicznej pacjenci uważają lekarza rodzinnego, który to stanowi bardzo ważne ogniwo w systemie zwalczania nowotworów w populacji.

Słowa kluczowe: choroba nowotworowa, profilaktyka onkologiczna, opóźnienia leczenia.

Reasons for delays in treatment of patients suffering from malignant cancers in Podkarpackie voivodeship

Abstract

Introduction. In the case of oncological patients, early implementation of treatment is a key matter. Any delays occurring on each of the levels of diagnostic and therapeutic processes may affect the outliving of the patients. Elimination of their reasons could reduce the time scale of the delays, increase the percentage of cancer instances detected in initial stages, as well as improve patients' prognoses.

Aim. The basic objective of this thesis was to identify the main reasons for the delays in the treatment of oncological patients. The additional goal was to establish the sources of information on prophylaxis collected by the patients.

Material and methods. The research comprised108 people who were treated in a stationary treatment system in two specialized oncology centers in Podkarpacie. The method consisted in a diagnostic poll and the employed technique was a survey carried out in the form of a standardized interview.

Results. Among the reasons for the delays that patients contributed to the most commonly mentioned were: lack of knowledge about the symptoms that could suggest cancer and as well as disregarding the symptoms. Eighty-one per cent of the respondents gave more than one reason. Among all respondents, 84% do not know the symptoms that may suggest cancer, 98% claim that actions, which promote this area of knowledge, are needed, and the highest rated source of information is a GP.

Conclusions. The majority of the reasons for the delays in cancer treatment are those, which lie on the side of patients and these are also responsible for the longest average time of procrastination. Delays in treatment on account of the health care system organization seem to be a relatively smaller problem in comparison to those on the side of patients. General practitioner, who constitutes an essential link in the system of fight against cancer in the population, is considered by the patients to be the most reliable source of information on oncological prophylaxis.

Keywords: cancer, oncological prophylaxis, treatment delays.

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INTRODUCTION

Malignant cancers constitute a great problem for the contemporary medicine. However, we should remember that they are a great burden not only for the healthcare, but also for the patients and their families. These multi-stage genetic diseases have various localizations, forms and clinical course. They can be caused by both genetic and environmental factors, which additionally complicates the problems connected with this disease [1,2]. No efficient manner of treatment of malignant cancers has been also discovered so far. However, it is a well-known fact that an early detection of the change and commencement of treatment is a positive prognostic factor, which increases survival chance in the patient.

What constitutes the key matter in the case of oncology patients is immediate treatment implementation and high quality of the healthcare. All delays in the diagnostic and therapeutic proceedings may influence the prognosis. Therefore, the minimization of the patient's waiting time may result in better possibilities to detect cancer in an early stage and, at the same time, better survival rate. Such a delay does not result only from the matters dependant on the healthcare and the manner of organization. The healthcare is, in fact, a necessary and very important factor, however, the patients themselves also play a great role [3,4]. In such a case, both going to a doctor and a further decision concerning commencement, resignation from or choosing other, unconventional treatment methods may be taken too late or in an inappropriate manner, influenced by various, often accidental circumstances. Therefore, in this thesis, we concentrated on the analysis of the main factors, which could be the reason for delays in treatment of patients with cancers, which seems to be one of the determinants that are still worse from most of the European countries in the case of results of treatment of malignant cancers in Poland.

AIM

The main objective of the thesis was the identification of the main reasons for delays in treatment provided for patients of the oncology centres in Podkarpacie. An additional objective was establishment of sources of their obtaining information on health prophylaxis, including the information concerning oncology.

MATERIAL AND METHODS

The study involved 108 patients treated in an in-patient manner in two specialist centres: Podkarpackie Centrum Onkologii Wojewódzkiego Szpitala Specjalistycznego im. Fryderyka Chopina (The Oncology Centre of Podkarpacie at the Frederic Chopin Voivodeship Specialist Hospital) in Rzeszów and Szpital Specjalistyczny – Podkarpacki Ośrodek Onkologiczny im. ks. Bronisława Markiewicza in Brzozów (Specialist Hospital – The Rev. Bronisław Markiewicz Oncology Centre of Podkarpacie, Podkarpackie voivodeship). Due to considerable data shortages, lack of consistence of the statements or reluctance to answer some questions by the respondents, 8 people were excluded during the introduction of the results. The following were the condition for being included in the group of respondents: giving the consent for participation in the study, a diagnosis confirming a malignant cancer, mental and physical condition allowing to provide information orally or in writing and attaining18 years of age. The group was characterized by a considerable age range (20-79 years), with the average age of 58.02. For further statistical analysis of the obtained results, the group of respondents was divided in relation to the age into two subgroups: people up to 54 years of age (34%) and people above 54 years of age (66%).Men constituted a considerable majority (66%), whereas women constituted 34%. No considerable advantage of one of the groups due to the division in relation to the place of residence was observed. Village residents constituted a slightly larger group – 52%. The smallest group of the respondents consisted of people with higher education (16%), whereas the largest – those with secondary education (36%). The number of people who graduated from a vocational school slightly differed from the one with secondary education (31%). A similar situation was related with primary education (17%) compared with higher education. Due to the increase in cancer morbidity rate connected with the age, recipients of pensions constituted the majority in the studied group (65%). White-collar – and blue-collar employees constituted, correspondingly, 14% and 13%. Among the people treated due to malignant cancers, 7% were unemployed. The average net monthly income per one family member amounted to PLN 1,123.37. The income of 23 people was higher than the average and the income of the remaining 77 people was lower.

The most frequent location of the primary change was the large intestine – 27% of cases. In 14%, the cancer was localized in the breast. The patients with cancer localized in their stomach (9%), lung (9%), lymphatic system (8%) and the oesophagus (8%) constituted a smaller group. In 5% of the polled population, the cancer was localized in the anus and the remaining cases were related to other, less frequent locations.

As we have not obtained consent to access the medical documentation and obtaining data from it, all information is based only on the responses received from the patients.

Among the people with clinical progression at the moment of diagnosis (20%), only in 1% of people 1st degree was classified, 2nd degree in 9%, 3rd degree in 6% and 4th degree in 1%. In 3%, an undetermined progression degree was specified. Nineteen per cent of people were not able to specify it with 100% certainty, 61% of people said that they were not provided with such information. In turn, 44% of patients suffered from other coexistent disease and 86.4% of them were treated due to its occurrence.

The study method was a diagnostic poll and the applied technique was a questionnaire conducted in the form of a direct standardized interview carried out in the period between January and March 2011. This manner was chosen on purpose, due to the restrictions, which occur in this group of respondents – a large part had vascular access ports which could result in difficulties in filling in the questionnaires by hand, moreover, there were elderly people and those with poor vision among the respondents, who preferred the above procedure of the study. An author's questionnaire prepared in order to achieve data necessary for the objective of the study constituted the study tool.

The obtained results were subject to a statistical analysis. Descriptive statistics were calculated for the particular data. The relationships of the variables were assessed with the test χ^2. In order to compare the variables, the t-Student test was applied. Hypotheses verification was performed with the use of variance analysis, post-hoc tests were also applied. The applied statistical significance was equal to p<00.5.

RESULTS

In the case of 100 patients, whose results were qualified to the further analysis, 6 people specified no reason, which would condition the delay in treatment, 13 people specified one reason, whereas 81 specified more than 1 (the maximum was 8). The main reasons defined in the reference books as the ones on the side of the patient – the respondents chose most often: not knowing the symptoms which can be an early mark for cancer occurrence – 55 times, ignoring the symptoms – 44 times, no time – 10 times, fear of the diagnosis – 9 times, fear of losing the job – 5 times, treatment with unconventional methods – 2 times, staying abroad – 2 times and no money – once.

Forty-seven people from the studied group declared occurrence of cancer in the closest family and 10 said that occurrence of the disease in the family influenced the delay in going to a doctor and commencement of treatment.

From among 44 patients in whom coexistent diseases occurred, 11 stated that they influenced the delay in going to a doctor due to alarming symptoms, which could suggest occurrence of cancer.

After the first examination 44 people were referred to an oncologist, 52 – to other doctors and 4 people were not referred for further diagnostics.

In 4 people who were not directed to further diagnostics, the average delay could be estimated for 141 days, maximum – 365 days, minimum – 0 days (because 2 people got to the emergency ambulance service), whereas the standard deviation was equal to 171 days.

Ninety-six patients, immediately after the cancer had been diagnosed, appeared in the centres for treatment in the specified time. The remaining 4 people started their treatment with a delay caused by: fear (2 people), lack of time (1 person) and unconventional treatment (1 person). The average delay was equal to 233 days, the longest – 365 days, the shortest – 31 days.

In order to give a picture of the average level of the phenomenon of treatment delay and to present the values of time shifts generated by the particular reasons in Table1, descriptive statistics were collected for the results obtained in the studied group.

Two people reported other reasons for the delay (Table 1,2).

Patients' approach to prophylaxis

Twenty-seven people from the studied group did not perform any periodical prophylactic examinations. From the entire group only 19 people participated in screenings, from which in 8 cases during the performance of the examinations the result was positive and further diagnostics confirmed the occurrence of malignant cancer. From the studied group 60% of people before the diagnosis were interested in health prophylaxis in a broad sense. The sources of obtaining information, which were most often listed by them, were television – 51 people, press – 48, radio – 28, leaflets – 28, talks – 10 indications. Whereas 34% heard of the National Cancer Control Program and 84% of the respondents did not know the symptoms, which could signal the presence of cancer. What is essential, 98% stated that campaigns making the society aware of at least the basic ones are necessary and only 1 person did not think that it is necessary to encourage people to perform prophylactic examinations and go to a doctor early in the case of occurrence of alarming symptoms.

TABLE 1. Reasons for the delays and their average values.

Reason of the delay	Number of people	Average delay period*	Maximum*	Minimum*	Standard deviation*	Median*
Own fault	70	187.9	3650	3	472.7	62
Doctor's fault	31	126.3	365	7	105.3	107
Diagnostics delay	48	21.5	183	7	26.9	14
Necessity to repeat the diagnostic examinations	3	10.5	14	7	4.9	10.5
Necessity to wait in a queue in an oncological centre	41	22.9	61	7	16.7	14

Source: own study. *time unit measured in days.

TABLE 2. Stages on which the possible delays occurred and their values.

Reason of the delay	Number of people	Average delay period*	Maximum*	Minimum*	Standard deviation*	Median*
Symptoms-doctor	70	187.9	3650	3	472.7	62
GP-specialist	35	69	365	4	96.2	26
Referral - conducting the examination/receiving results	48	21.5	183	7	26.9	14
Diagnosis - commencement of the treatment	9	22.3	61	3	24.6	10.5

Source: own study. *time unit measured in days.

The patients also assessed the sources of information concerning oncological prophylaxis. This question consisted in the assessment of the sources listed by the pollster in the scale 0-3 (0 – not effective, 1 – not sufficiently effective, 2 – moderately effective, 3 – very effective).

They also had the opportunity to suggest their own source of information, other than the listed ones and to assess it. Fourteen people presented their suggestions and they assessed it with the maximum grade. From among the specified suggestions, what the patients assessed highest was the value of information given by a family doctor (average note 2.46), a bit lower the mass media (2.3), they found leaflets and posters not very effective and the Internet – the worst source of passing this kind of information (0.75).

Socioeconomic factors and delay of treatment

The statistical analysis of the results has proven that the socioeconomic factor which most influenced the patients' ignoring symptoms and the scope of their knowledge concerning symptoms, which may suggest the occurrence of a malignant cancer is their sex.

Sex seems to have a slight influence on the assessment of the information sources; however, the educational background, age and place of residence are the factors, which play an important role. The assessment of effectiveness of television/radio as the source of passing information concerning cancer prophylaxis mostly depended on the respondents' education. The assessment was different in the case of the Internet, which depended on the age, place of residence and educational background of the respondents.

Women much more rarely than it follows from the theoretical distributions, ignore the alarming symptoms. The situation is different in the case of men who underestimate them much more often. Women also much more often know the symptoms which could suggest the presence of a cancer.

In the case of assessment of the mass media, such as radio or television, as the source of knowledge concerning oncology prophylaxis, the group of people with primary and vocational education assessed these communication methods as very effective. People with secondary and higher education assessed them slightly worse. Villagers assessed the Internet as an unreliable source of knowledge much more often than residents of towns and cities. People with primary and vocational education assessed the Internet as a less reliable source of information also, whereas the assessment of the group with secondary and higher education suggested that the Internet is relatively effective as regards the educational function in this scope. People above 54th year of age assessed the Internet much worse than it would follow from theoretical distributions.

As it has been proven by the analysis, the income is not statistically correlated with the delays in going to a doctor, awaiting diagnostic examinations or a visit at a specialist. These are negative values. It can be stated that a higher income influenced a person who, as a result, reacted faster and immediately went to a doctor.

The variance analysis has not proven statistically significant differences between the education and time which elapsed from the occurrence of the first symptoms to going to a doctor ($F=0.646$, $p=0.588$).

It can be only observed that this time:

- for people with primary education is longer than for people with vocational and higher education, however it is shorter than for people with secondary education,
- for people with vocational education is shorter than for people with primary and secondary education, however it is longer than for people with higher education,
- for people with secondary education is longer than in the case of the remaining groups,
- for people with higher education is shorter than in the case of the remaining groups.

However, as a result of a comparison of age groups up to the 54th year of age and above, it has been proven that the average time from the occurrence of the first symptoms to a visit at a doctor in the case of the first group (up to the 54th year of age) is, on average, equal to 305 days, whereas in the case of the second group (above the 54th year of age) – 107 days.

DISCUSSION

The analysis of the results of similar research conducted in the years 2003-2004 has proven that still more than a half of patients get to a doctor when the cancer is in a considerably advanced stage, which prevents application of a radical treatment method [5]. Unfortunately, the data from the own research does not allow to specify a similar statement, as for reasons independent of the researcher, it was not possible to obtain it (no consent). The data from the own questionnaire has proven that most often the delay was on the side of the patient. The authors of the research of 2003-2004 obtained very similar results confirming, that the patient's ignoring the symptoms of cancer had a great influence (58.1% in 2003-2004, 44% in own research). The obtained results allowed defining another very important factor on the side of a patient – not knowing the symptoms of cancer, which characterized 55% of the respondents. However, the Polish reference books do not consider this reason and this was the cause the respondents specified not often as the one generating the delay in going to a doctor.

Considerably lower influence of fear of the cancer diagnosis in comparison to the aforementioned research was observed (9% in own research – 36.5% in the research from the years 2003-2004) [5]. This is probably because during the last century (and in particular the last decade) a lot has changed in the prognoses to the benefit of the patients in whom cancer was diagnosed – the recovery chances increased from several to, on average, 50 per cent [6]. What may constitute other reason is the fact, reported by the patients, that they did not connect the observed symptoms with the possible onset of a cancer.

Similarly, no essential influence of existence of coexistent diseases was observed; however, such cases were also recorded. In spite of the fact that in 47% of the respondents occurrence of a cancer in the family was confirmed, only 10% of them declared that it influenced the delay.

The average time shift caused by the patient, delaying the commencement of treatment in the own research amounted to, approximately, half a year and it was considerably lower

in comparison with the results from the previous years (Table 3).

TABLE 3. Comparison of average delays in commencement of treatment in patients examined in the years 1991/92 and 2003/04 (Pawlicki M, Michalczyk A.) in comparison with the results of the own research*.

Types of the delay	1991-1992	2003-2004	2011
Average delay caused by the patient	70	187.9	3650
Average delay caused by the doctor and delaying the diagnostics	31	126.3	365
Average delay due to organizational reasons	48	21.5	183
Average delay due to treatment with unconventional methods	3	10.5	14

* time in months was converted into time in days - it was assumed that 30.5 days falls on 1 month.
Source: own study based on Pawlicki M, Michalczyk A.
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The results obtained in the questionnaire also prove that smaller and smaller group of patients decide to use the unconventional treatment methods in comparison to the results of the research of other authors from before 2004.What may be comforting is the fact that the results of the own research suggest a considerable decrease of the number of people who were not referred by doctors to further diagnostics (4%) when compared with the year 2004 (20%) and with previous years [5,7-9].

Based on the analysis of the obtained data and its comparison with the results of other authors, it can be observed that both the social awareness and the manner of healthcare organization undergo favourable changes, which results in less delay that takes place in particular stages of diagnosing and treatment of oncology patients. Lower and lower percentage of patients does not abandon seeking medical help due to the fear of being diagnosed with cancer (9%). Also, a decreasing number of people who are left with no medical help, in spite of occurrence of alarming symptoms may be recorded (4%). Also the social awareness is changing in relation to the unconventional treatment methods, sick people more and more rarely abandon the standard oncological treatment in order to apply unconventional therapies (1 case in the own research).

However, it must be taken into consideration that the entire period of the delay, which determines the results of treatment involves both the delay on the side of the patient and the period from the first medical consultation to commencement of the therapeutic proceedings and their sum often determines the patient's health or life [10]. In the world literature it is always stressed that the delay in searching for doctor's advice in developing countries is one of the main determinants of high mortality rate due to cancers [11,12].

Disturbing is the fact that no information on oncological prophylaxis turns out to be the main determinant of delays in treatment due to cancer. Patients are eager to talk; they also use various sources of information, which, however, are not always reliable. As it has been proven by the results of the research, general practitioners win most of the trust of patients – they were assessed best as a reliable and effective source of information concerning oncological prophylaxis (on average, 2.46 in the scale 0-3). The high notes in the opinion of the patients were also given to mass media, such as radio and television. As it follows from the detailed statistical analyses and the current results of research of other authors, using other sources, forms and methods of passing information from this field must be, most of all, adjusted to the socioeconomic situation of the target group [13-16].

CONCLUSIONS

1. The largest group of reasons for delays in treating cancer are those, which are on the side of the patients, and they also result in the longest average period of the delay. The reasons most often listed in this group were not knowing the symptoms which may suggest cancer and ignoring symptoms, which determined a significant delay, in particular on the stage from the occurrence of the first symptoms to seeking doctor's help by the patient (70%).
2. Almost all respondents (99%) stressed the necessity to organize mass information campaigns and they say that the general practitioners are the most effective source of such information.
3. The positive phenomenon is the fact that only a small group of patients with higher probability of cancer occurrence was not referred by doctors for further diagnostics and the percentage of patients who use unconventional treatment methods is relatively low.

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