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Analiza przyczyn występowania choroby wrzodowej żołądka i dwunastnicy wśród pacjentów hospitalizowanych w SPSW w Zamościu

Analysis of causes for chronic gastric and duodenal ulcer disease prevalence among patients hospitalized in Regional Hospital in Zamość

Streszczenie

Wstęp. Ze względu na znaczny udział czynników środowiskowych, chorobę wrzodową zalicza się do chorób społecznych i cywilizacyjnych. Choroba wrzodowa jest jednym z najczęstszych schorzeń przewodu pokarmowego. Zgodnie z ogólnie przyjętym poglądem, choroba wrzodowa jest wieloczynnikowa. Dużą rolę w jej powstawaniu odgrywa *H.pylori*, stres, nieregularny sposób odżywiania, nadużywanie alkoholu, niesteroidowe leki przeciwzapalne i inne.

Cel pracy. Analiza przyczyn występowania choroby wrzodowej wśród pacjentów hospitalizowanych w Wojewódzkim Samodzielnym Szpitalu w Zamościu.

Materiał i metoda. W badaniu wzięło udział 246 osób. Przeprowadzono wywiad z pacjentami oraz przeanalizowano historie chorób tych pacjentów. Badania zostały przeprowadzone w okresie od stycznia do grudnia 2006 roku.

Wnioski:

1. Istotny odsetek choroby wrzodowej był związany z infekcją *H.pylori* oraz stosowaniem niesteroidowych leków przeciwzapalnych.
2. U większości pacjentów występuje kilka czynników ryzyka choroby wrzodowej.
3. Najczęstszym powikłaniem choroby wrzodowej było krwawienie z górnego odcinka przewodu pokarmowego.

Słowa kluczowe: choroba wrzodowa, *H.pylori*, stres.

Summary

Introduction. Due to the high contribution of environmental factors, ulcer disease is reported as social and civilization disease. It is one of the most frequently occurring ailments of alimentary tract. According to general opinion, ulcer disease is multifactorial. *H.pylori*, stress, irregular diet, alcohol abuse and non-steroidal anti-inflammatory drugs have crucial role in disease development.

Aim of the work. Analysis of factors causing ulcer disease incidences among patients hospitalized in Regional Hospital in Zamość was the objective of the work.

Materials and methods. Medical history of patients as well as analysis of their disease background were considered. Studies were carried out from January – December, 2006 among 246 people.

Results:

1. Significant percentage of ulcer disease refers to *H.pylori* infection as well as to the use of non-steroidal anti-inflammatory drugs.
2. In most of the cases there are several risk factors of ulcer disease.
3. Bleeding from superior portion of alimentary canal was the most frequently occurring complication.

Key words: ulcer disease, *H.pylori*, stress.

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INTRODUCTION

Peptic ulcer disease which affects stomach and duodenum is one of the most frequently occurring ailment of gastrointestinal tract. Due to the high contribution of environmental factors, ulcer disease is known as social and civilization illness. Ulcer disease might occur with acute pain, or unfortunately it might have asymptomatic course with subsequently appearing serious complications. Ulcerous pain usually comes along with compression in upper abdomen. However, it must be noticed that typical ulcerous pain might not appear and than course of disease is said to be silent. Sudden serious complications such as hemorrhage might be first and only symptom of ulcer disease. Ulcerous pain maintains for few weeks among untreated patients, whereas remission of disease might occur without any treatment. Relapse usually occurs in spring and autumn period and such seasonal incidence of the disease might indicate ulcers. Those who are affected, might suffer from numerous recurrences along with typical symptoms. Being aware of the type of disease, they often try to treat it individually with generally available medicines. Discovery of *Helicobacter pylori* in 1983 by J. Warren and B. Marshall from Australia was a turning point. Many of the subsequent publications regarding *H. Pylori* issue, confirmed pathogenic function of this bacteria in ulcer disease [1]. Thanks to the discovery of *H. Pylori* by Warren and Marshall, who gained Nobel Prize in 2005, it was possible to introduce proper antibiotics to treatment of ulcers. *H. Pylori* is said to be the major cause of chronic inflammation of gastric mucosa and important factor for ulcer disease [2]. Stress, irregular diet, alcohol abuse, strong coffee and tea, smoking addictions and non-steroidal anti-inflammatory drugs have also crucial role in disease development.

Aim of the work: Analysis of factors causing ulcer disease incidence among patients hospitalized in Regional Hospital in Zamość was the objective of the work.

MATERIALS AND METHODS

Studies were conducted from January – December 2006. Patients from surgical ward, gastroenterology, internal diseases department, nephrology and endocrinology as well as from anesthesiology and intensive care unit were included in the studies. Research was conducted among 246 patients with stomach and duodenum ulcer diseases within the age group of 14-97 years. Each time, medical interview was made by one of the authors. In order to obtain data regarding course of hospitalization, the diseases background was also analyzed. The obtained results were statistically analysed. Values of parameters were given under quantitative and percentage analysis: To identify distinctions and dependences between variables, X^2 test was used. 5% inference error was considered. Statistical analysis was made based on STATISTICA v. 6.0 software (StatSoft, Poland).

RESULTS AND DISCUSSION

Studies were conducted among 246 patients, including 117 women (47.56%) and 129 men which accounted for 52.44%. Age range was varied from youngest person being 14 years old to the oldest one at the age of 97 years. Among

men, the youngest patient was a boy aged 18, whereas the oldest one was a man aged 86 years. People at the age range 51-80 years, including both male and female patients, were in the most numerous group suffering from ulcer disease ($p=0.001$). The least numerous group included patients aged below 30 years. ($p=0.001$). Most of the respondents lived in the village (145 people – 58.94%), and others – which account for 41.06% (101 people) were city inhabitants. In the group with ulcer diseases, lower percentage of women (18.70%) and men (22.36%) living in the village was observed ($p=0.001$). However, it must be noticed that Zamość Region of is an agricultural region. According to statistical data obtained in 2004 – 11,748 people from Zamość Region live in towns, whereas 99,342 people are village inhabitants. Regarding education, significant variety was noticed. Most of the interviewed had vocational education (34.96%) and 9.35% had higher education. Among women, patients with elementary and basic education were most numerous (66.6%; $p=0.0001$), whereas among men, basic and secondary education level was most popular (63.5%; $p = 0.0001$). Higher prevalence of a disease in population with basic and elementary education is related to age of patients as well as to agricultural region of Zamość. The highest percentage of ulcer diseases was reported among patients of gastroenterology and internal disease department – 47.16%, whereas the lowest was noticed in anesthesiology and intensive care unit – 0.81% ($p=0.01$). Such number of hospitalized patients depends mostly on specific type of medical departments and units. In the Department of Gastroenterology and Internal diseases, mostly women were admitted to hospital due to ulcer diseases – 56.89%, whereas men were mostly hospitalized in a surgical ward – 63.72% ($p=0.01$). It might be assumed that among men, ulcer disease took a course with more serious complications and required surgical intervention. In the examined groups, highest percentage of hospitalizations was noticed in August (15.23%), while the lowest was in December (5.7%) ($p=0.000$). Recurrence of the disease with subsequent admission to hospital was noticed among 3.52% of patients. Hemorrhage associated with ulcers, was the major first as well as second reason for hospital admission. Tests for presence of *H. Pylori* were carried out in the examined population. Only 2.29% of patients reached negative result in test and others got positive one (97.71%). *H. Pylori* infections are among the most prevalent ones in the upper alimentary tract. Presumably, 50% of European population is affected with the above infection [1-7]. It is assumed, that the percentage of infected adult Poles accounts for 60-80%. [8]. The risk of ulcer development in infected population, is estimated for 12-24% of probability [9]. Re-infection with *H. Pylori* is said to be responsible for recurrence of ulcer disease. Previous reports show that re-infection in Poland is common and is indicated by 12-50% [9]. Therefore, eradication of *H. Pylori* with appropriate two or three-component agents among patients with ulcer disease is crucial and guarantees low indication of recurrence [10]. From all of the interviewed, 41.02% of women and 24.03% of men ($p=0.000$) confirmed using non-steroidal anti-inflammatory drugs, whereas smoking habit was admitted by 39.53% of men and 12.82% of women ($p=0.000$). Non steroidal anti inflammatory drugs induce inflammation of gastric mucosa and therefore predispose patients to ulcer development [11]. After analyzing stress

as the reason for ulceration, it was reported that 23.12% of women and 35.54% men complain about stress, especially at workplace ($p=0.001$). Alcoholism was recognized among 7.25% of the examined patients. The summary of all potential factors which determine ulcer disease showed that many of patients deal with more than one risk factor. Patients affected simultaneously with three factors were in the most numerous group – 59.27% ($p=0.000$). The group with one risk factor accounted for 18.30% ($p=0.000$), while the group with two factors included 20.35% of patients ($p=0.000$). Conservative medical therapy was reported by 58.13% of interviewed patients. Proton pump inhibitor or endoscopic treatment which inhibits bleeding is the therapy which might be applied in most patients [12-14]. The majority (33.13%) followed endoscopic treatment that stopped bleedings from alimentary canal. Some of the patients (8.74%) went through surgery. Complications of ulcer disease go as following: bleedings from alimentary tract – occurred in case of 38.18% of patients, perforation – 6.09%, tumors of stomach – 5.05%. Other patients, who accounted for 48.32% did not have complications related to ulcerations. Unfortunately, 1.22% of patients died from intensive bleeding associated with ulcer disease – those patients were admitted to hospital with very intensive hemorrhage in the state of hypovolemic shock.

CONCLUSIONS

1. Significant percentage of ulcer disease was associated with H. Pylori infection and with non-steroidal anti-inflammatory drugs.
2. Most of patients are affected with few factors causing ulcer disease
3. Bleedings from upper alimentary tract was the most frequent complication related to ulcer disease

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