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มะเร็งเต้านมในโรงพยาบาลศรีนครินทร์ (พ.ศ. 2543-2553)

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Breast cancer in Srinagarind Hospital (2000-2010)

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วัตถุประสงค์: เพื่อศึกษาแนวโน้มจำนวนผู้ป่วยมะเร็งเต้านมต่อปีแนวโน้มระยะของมะเร็งเต้านมเมื่อแรกวินิจฉัยและอัตราการรอดชีวิตที่ห้าปีของผู้ป่วยมะเร็งเต้านมที่รักษาที่โรงพยาบาลศรีนครินทร์ระหว่างเดือนมกราคม พ.ศ. 2543 ถึงเดือนธันวาคม พ.ศ. 2553

วิธีการศึกษา : เป็นการศึกษาเชิงพรรณนา โดยการเก็บรวบรวมข้อมูลจากฐานข้อมูลของหน่วยมะเร็งโรงพยาบาลศรีนครินทร์ คณะแพทยศาสตร์ มหาวิทยาลัยขอนแก่น ในผู้ป่วยมะเร็งเต้านมที่รักษาที่โรงพยาบาลศรีนครินทร์ระหว่างเดือนมกราคม พ.ศ. 2543 ถึงเดือนธันวาคม พ.ศ.2553 เกี่ยวกับจำนวนของผู้ป่วยรายใหม่ในแต่ละปี อายุ ระยะของโรค การรักษา และอัตราการมีชีวิตรอดที่ห้าปี โดยใช้สถิติแบบพรรณนา แปลผลอัตราการมีชีวิตรอดด้วย Log-rank test และนำเสนอด้วย Kaplan Meier curve

ผลการศึกษา: มีจำนวนผู้ป่วยมะเร็งเต้านมเพศหญิงจำนวน 3,097 ราย (ร้อยละ 98.9) และเพศชายจำนวน 36 ราย (ร้อยละ 1.1) โดยมีอายุเฉลี่ยเท่ากับ 50.0 ปี ระยะของโรคมะเร็งเต้านมเมื่อแรกวินิจฉัยที่ระยะ1,2,3,4 และไม่ทราบระยะเท่ากับร้อยละ 6.5, 28.5, 28.2, 15.5 และ 21.3 ตามลำดับผู้ป่วยทั้งหมดได้รับการรักษาโดยการผ่าตัด รับยาเคมีบำบัดและฉายแสงร้อยละ 80.0, 67.5 และ 31.1 ตามลำดับอัตราการมีชีวิตรอดที่ห้าปีของผู้ป่วยมะเร็งเต้านมทั้งหมดเท่ากับร้อยละ 59.1 (95%CI:56.6%-61.8%) อัตราการมีชีวิตรอดที่ห้าปีของผู้ป่วยมะเร็งเต้านมระยะที่ 1, 2, 3, 4 และไม่ทราบระยะเท่ากับร้อยละ 89.7 (95%CI:83.9%-96.0%), 74.6 (95%CI:70.5%-79.0%), 48.3 (95%CI:43.7%-53.4%), 28.2 (95%CI:22.8%-34.8%) และ 63.8(95%CI:56.3%-72.1%) ตามลำดับ

Objective: To determine trends of new cases per year, stages and five-year survival rate of breast cancer in Srinagarind Hospital during January 2000 and December 2010.

Materials and Methods: During January 2000 and December 2010, all new cases of breast cancer in Srinagarind Hospital, Faculty of Medicine, Khon Kaen University, Thailand were included in the study. Electronic database of Srinagarind cancer registry was accessed and reviewed. Demographic data and survival time were analyzed using Descriptive statistics and Log-rank test, respectively.

Results: There were 3,097 female (98.9%) and 36 male patients (1.1%). The mean age was 50.0 years old. Stage at diagnosis of I, II, III, IV and unknown were 6.5%, 28.5%, 28.2%, 15.5% and 21.3%, respectively. Treatments of breast cancer including surgery, chemotherapy and radiotherapy were 80.0%, 67.5% and 31.1%, respectively. Overall five-year survival rate was 59.1% (95%CI:56.6%-61.8%). The five-year survival of stage I,II,III,IV and unknown were 89.7%(95%CI:83.9%-96.0%), 74.6%(95%CI:70.5%-79.0%), 48.3% (95%CI:43.7%-53.4%), 28.2% (95%CI:22.8%-34.8%), 63.8% (95%CI:56.3%-72.1%), respectively.

Conclusion: The number of new cases per year of breast cancer were increasing in the past decade but

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สรุป: จำนวนผู้ป่วยมะเร็งเต้านมต่อปีมีแนวโน้มเพิ่มขึ้นแต่แนวโน้มระยะของโรคมะเร็งเต้านมเมื่อแรกวินิจฉัยไม่มีความแตกต่างกัน และอัตราการมีชีวิตรอดที่ห้าปีของผู้ป่วยมะเร็งเต้านมเท่ากับร้อยละ 59.1

คำสำคัญ: มะเร็งเต้านม, แนวโน้ม, อุบัติการณ์, ระยะของโรค, อัตราการมีชีวิตรอด, ขอนแก่น, ประเทศไทย.

the proportion of each stage were not difference. The overall five-year survival rate was 59.1%.

Key words: Breast cancer, Trends, Incidence, Stage, Survival rate, Khon Kaen, Thailand

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Introduction

Breast cancer is one of common malignant tumor in women[1]. Global trends in breast cancer are continuously rising in developing countries, including Thailand[2,3] . Although the exact causes of breast cancer are still unknown, several risk factors such as prolonged estrogen exposure, obesity and consuming a high-fat diet may contribute to the cancer development[4]. There are two standard treatments of breast cancer. First is locoregional treatment such as surgery, radiation and second is systemic treatment such as chemotherapy, hormonal treatment and targeted therapy[5]. Overall survival of breast cancer depends on staging and tumor biology, therefore, the earlier stage has been diagnosed, the better survival. Srinagarind Hospital is the largest University hospital in Northeastern (NE) Thailand that is referral center for all hospitals in NE. Therefore, the data from the hospital database could reflect the situation of breast cancer in NE Thailand. The aim of this study is to determine trends of new cases per year, stages and five-year survival rate of breast cancer during the years 2000-2010 in Srinagarind hospital.

Materials and methods

Patients

A retrospective study was conducted in newly diagnosed breast cancer patients who had been registered in Srinagarind Cancer Registry, Khon Kaen University, Khon Kaen, Thailand during January 2000 to December 2010. This study has been reviewed and approved by the Khon Kaen University Ethics Committee for Human Research based on the Declaration of Helsinki and the ICH Good Clinical Practice Guidelines (HE57238). Demographic data including sex, age and medical records including stages and treatment were reviewed and reported.

Statistical Analysis

The survival time was defined as the duration since date of diagnosis to the last follow up or death from any causes. Patient's characteristics have been presented as mean and percentage. The cumulative survival rate has been presented by the Kaplan Meier curve. Comparison of the median survival based on the stages of disease has been analyzed using Log-rank test. The statistical analysis was performed using SPSS software version 20.0. A *p*-value less than 0.05 was considered statistically significant.

Results

There were 3,133 breast cancer patients; 3,097 females and 36 males . The average case per year were 284 and trends of cases per year have been continuously increasing year by year. Obviously, the highest number of case (398 patients) were found in 2010 (Figure 1). The median and mean ages of patients were 49-year and 50-year (SD11), respectively (Figure 2).

The most common pathological results were invasive ductal and invasive lobular carcinoma (80.5%). The most common stage was stage II (28.5%). The diagnosis of stages III, IV, I were 28.2%,15.5% and 6.5%, respectively. We found 21.3% in patients with unknown stage. Although the percentage of unknown stage were fluctuated between 2000 and 2006, the trends have

declined continuously over the period 2007-2010, especially in the last two years which became less than 10% (Figure 3).

For treatment, patients had undergone surgery, chemotherapy and radiation for 80.0%, 67.5% and 31.1%, respectively.

Median survival time for stage II, III and IV were 12.8, 4.8 and 1.8 years, respectively. Overall five year survival was 59.1% (95%CI:56.6%-61.8%). Five year survival rates for stage I, II, III, IV and unknown were 89.7%(95%CI:83.9%-96.0%), 74.6%(95%CI:70.5%-79.0%), 48.3% (95%CI:43.7%-53.4%), 28.2% (95%CI:22.8%-34.8%) and 63.8%(95%CI:56.3%-72.1%), respectively (Figure 4). Survival time of each stage was statistically significant differences among the four stages.

Discussion

leading type of cancer in women, followed by breast cancer[6] . However, trends in breast cancer incidence were persistently elevated in agreement with previous data from the national cancer institute of Thailand. The age-standardized incidence rate (ASR) of breast cancer in Thailand is 26.4 per 100,000 , which is the same highest cancer incidence in women as other countries around the world[2,3] .

The median age at diagnosis of breast cancer in this study was 49-year corresponding to the work of Kotepui M, et al[7] which presented the age distribution from cancer registry of Thailand. Nevertheless, our study demonstrated the younger median age at diagnosis of breast cancer compared to the data from the Surveillance Epidemiology and End Results (SEER) program of the U.S. National Cancer Institute which revealed 61-year[8] .

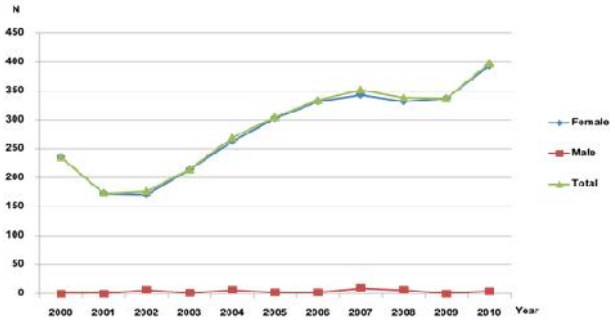

Figure1 The number of new cases of breast cancer per year.

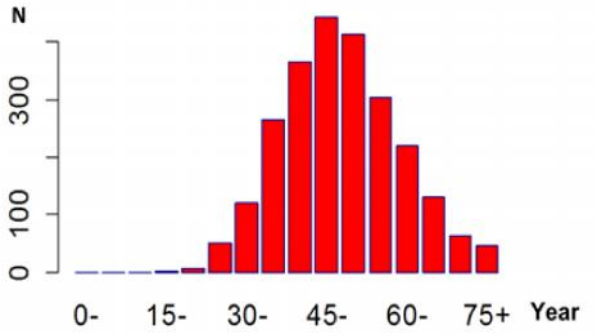

Figure 2 Number of breast cancer (N) by age group

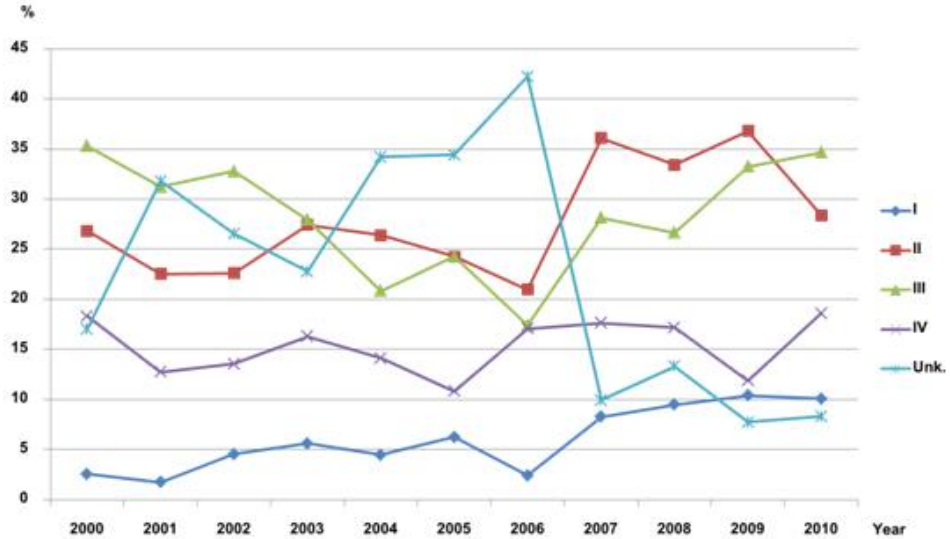

Figure 3 Breast cancer stages (%) by the year of diagnosis.

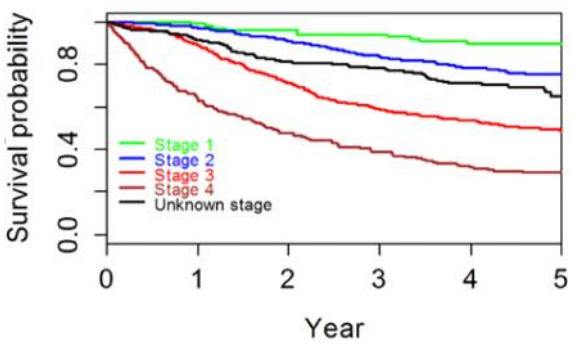

Figure 4 Survival rate of breast cancer by stage in each year.

The proportion of breast cancer in localized stages (stage I and II), regional stage (stage III), distant stage (stage IV) and unknown stage were 35.0%, 28.2%, 15.5% and 21.3%, respectively. In contrast to SEER report, localized stage, regional stage, distant stage and unknown stage were 61%, 32%, 5% and 2%, respectively[8] . According to our data, we found that localized stage was less than SEER data (35.0% vs 61%) but distant stage was greater (15.5% vs 5%). The screening program of breast cancer in Thailand is opportunistic screening which is dissimilar to mass screening in developed countries; therefore, less localized stage and more distant stage of breast cancer were presented. According to figure 3 during past decades the proportion of each stage were not significant difference. Health education to promote early diagnosis and screening result to early detection of breast cancer. The proportion of unknown stage in our study was rather high, especially from 2000 to 2006, which were 29.9% in average. This could result from inadequate information in medical record. Fortunately, the trends of unknown stage was improved in 2007 to 2010 which exhibited 9.8% of unknown stage in average.

The main treatments for breast cancer include surgery, chemotherapy and radiation. These options were dependently adjusted by stage and tumor biology at the time of diagnosis. In Thailand, targeted therapy for breast cancer could not be provided as a standard guideline in treatment for all patients. With regard to national policy, the restricted access for some cases has proposed. Most of people could not afford this new treatment. This could affect the survival rate in which patients that have positive result of HER 2 test.

As stated in the same setting but different period, the five-year survival rate of our study in stage I, II and III confirmed those of earlier study of Poum, et al[9] . However, the present study employed the better survival rate in stage IV. This finding may derive from a new treatment option during last decade, particularly new chemotherapy and hormonal therapy, could impact on the survival time. Overall five-year survival rate of our study was discovered in agreement with the finding previously reported from Malaysia in the same period[10]. On the contrary, comparison of survival rate between ours and SEER database has shown that our results obtained lower survival rate by stage[8] . This may be due to the limitation of treatment, especially in targeted therapy.

Conclusion

The number of new cases per year of breast cancer have been increased in the past decade but the proportion of each stage were not significant difference. The overall five-year survival rate was 59.1%.

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