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# *Breast cancer – the diagnostic and therapeutic problem*

The progress made in recent years in the diagnostics of breast cancer, the universal character of mammographic and ultrasonographic screening examinations and the growth of social awareness with respect to this disease have caused a great deal of diagnostic problems. Cases of big, ulcerating cancer tumours, which infiltrate skin have now become history, and are reported sporadically at best. However, physicians are now facing the problem, which is the diagnosis of 1-5 mm changes detected in examinations. The situation has been further complicated by the universal application of the substitute hormonal therapy and hormonal contraception the use of which leads to changes in the structure of the breast gland. The clinical and mammographic examination of these changes remains as difficult as ever. Increased disease incidence in young forty years old female has also been an important factor to affect the whole situation. This is largely due to the fact that the rays employed during the mammographic examination do not permeate the big glandular component (8).

The necessity to diagnose small tumours in combination with 80-90 % mammographic sensitivity reported compelled clinical physicists to verify these changes with histopathological examination (3, 6).

In the cases when the clinical examination, the result of a mammographic examination and that of fine needle aspiration biopsy do not provide a coherent picture, surgeon has to qualify a patient for tumorectomy with an intra-operative study. A great deal of criticism forces specialists to take steps towards a more reliable diagnosis. Relevant procedures are often performed in the operating theatre in the form of a one-day surgery.

## MATERIAL AND METHODS

In the years 1997-2000, 173 breast tumorectomies were made. Patients with benign neoplasm (e.g. adenofibroma, papilloma mammae) or patients with arousing suspicion of oncological anxiety breast tumour were qualified for surgical procedures. Operations were performed in one-day surgery conditions and intra-operative examination was performed in every case. In cases of non-palpable tumours, which were visible in ultrasonography or mammography the changes were marked by an "anchor" in order to be removed and examined histopathologically.

Oncological purity rules were respected during the surgical procedures. Tumours were resected with a margin of normal breast tissue. In a few cases of carcinoma detection tumorectomy was an introduction for a breast conserving therapy (bct). Patients whose additionally preoperative examinations have addmitted a breast cancer were treated typically, which means they were hospitalized, operated on with intra-operative examination. Radical modified mastectomy or bct (breast conserving therapy) was performed.

## RESULTS AND DISCUSSION

The operated patients were 17-89 years old. In the obtained 173 tissue fragments dysplasia benigna was recognized in 47.98% of cases, in 42.2 % adenofibroma, in 2.31% papilloma mammae, in 1.73% mastitis chronica, in 4.62% ca ductale invasivum and in 1.16% ca ductale in situ has been observed (Fig. 1.).

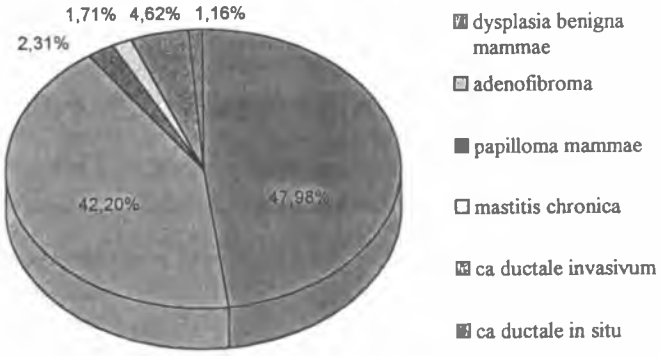


Fig.1. The percentage rate of detected breast changes

In the performed study, a large quantity of detected malignant neoplasms determining 5.7% of all resected tumours was worth attention. It seems that this testifies to incapacity of diagnostic methods, to little clinical practice and incorrectly executed mammographic and ultrasonographic screening investigations of the breast. However, the analysis of the results of this type of medical procedure conducted in other centers, would confirm similar frequency of cancers detected in excisional biopsy (5, 9, 10). In literature data, this percentage was 5% (9). Some authors confirm the benefits resulting from this type of diagnostic and therapeutic methods, which give to pathologists the time and the possibility of preparations' consultation. Furthermore, the above described methods make possible for the group of oncologists (chemiotherapists, radiotherapists and oncological surgeons) to take a common decision regarding the best treatment method (6, 7) in a given case. Two-staged therapy does not make worse prognosis and is the preferred management method in selected cases (1, 6).

Carcinoma in situ, diagnosed in two cases was worth attention; in these two patients so early diagnosis protected women against malignant disease.

The results of the performed study show the sensitivity of fine-needle aspiration, which in case of very small change can amount to about 60% (2, 4, 11).

## CONCLUSIONS

1. Proceeding excisional biopsy in one-day surgery conditions is a very good diagnostic and therapeutic method in case of breast tumours arousing oncological anxiety.

2. A well – made surgical biopsy conserving the margin of normal breast tissue can be the first stage of effective breast-conserving therapy in the breast tumour.

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## SUMMARY

The progress made in recent years in the diagnostics of breast cancer, the universal character of mammographic and ultrasonographic screening examinations and the growth of social awareness with respect to this disease have caused a great deal of diagnostic problems. Cases of big, ulcerating cancer tumours, which infiltrate skin have now become history, and are reported sporadically. However, physicians are now facing the problem, which is the diagnosis of 1-5 mm changes detected in examinations.

The necessity to diagnose small tumours in combination with 80-90% mammographic sensitivity reported compelled clinical physicists to verify these changes with histopathological examination.

In the cases when the clinical examination, the result of a mammographic examination and that of fine needle aspiration biopsy do not provide a coherent picture, a surgeon has to qualify a patient for tumorectomy with an intra-operative study.

In the years 1997-2000, 173 breast tumorectomies were made. Patients with benign neoplasm (e.g. *adenofibroma, papilloma mammae*) or patients with arousing suspicion of oncological anxiety breast tumour were qualified for surgical procedures. Operations were performed in one-day surgery conditions and intra-operative examination was performed in every case. In cases of non-palpable tumours, which were visible in ultrasonography or mammography the changes were marked by an "anchor" in order to be removed and examined histopathologicaly.

The operated patients were 17-89 years old. In the obtained 173 tissue fragments *dysplasia benigna* was recognized in 47.98% of cases, in 42.2 % *adenofibroma*, in 2.31% *papilloma mammae*, in 1.73% *mastitis chronica*, in 4.62% *ca ductale invasivum* and in 1.16% *ca ductale in situ* has been observed.

## Rak sutka – problem diagnostyczny i terapeutyczny

Widoczny w ostatnich latach postęp w zakresie diagnostyki nowotworów gruczołu piersiowego, powszechność przesiewowych badań mammograficznych, ultrasonograficznych oraz wzrost świadomości społecznej na temat tej choroby spowodowały jednocześnie ogromne trudności diagnostyczne. Do historii przeszły przypadki bardzo dużych, wrzodziejących guzów, naciekających skórę, a lekarze stanęli przed problemem diagnozowania 1-5 mm zmian. W przypadkach gdy obraz kliniczny, wynik badania mammograficznego i wynik biopsji aspiracyjnej cienkoigłowej nie są spójne, chirurg jest zmuszony zakwalifikować chorą do tumorektomii z badaniem śródoperacyjnym.

W latach 1997-2000 wykonano 173 tumorektomie gruczołu piersiowego. Do zabiegu kwalifikowano chore z rozpoznaniem nowotworu łagodnego (np. *adenofibroma* czy *papilloma mammae*) oraz pacjentki z budzącym niepokój onkologiczny guzem piersi. Operacje przeprowadzano w warunkach „chirurgii jednego dnia", pacjentki znieczulano miejscowo, a następnie resekowano guz, wykonując za każdym razem badanie śródoperacyjne. W przypadkach guzów niepalpacyjnych widocznych w USG lub mammografii zmiany znaczono „kotwiczką", a następnie usuwano i badano histopatologicznie. Podczas operacji przestrzegano zasad „czystości onkologicznej".

W uzyskanych 173 fragmentach tkankowych w 47,98% przypadków rozpoznano *dysplasia benigna mammae*, w 42,2% *adenofibroma*, 2,31% *papilloma mammae*, w 1,73% *mastitis chronica*, a 4,62% stwierdzono *ca ductale invasivum* i 1,16% *ca ductale in situ*.

Wnioski: 1. Biopsja ekscyzyjna wykonywana w warunkach chirurgii jednego dnia jest bardzo dobrą metodą diagnostyczną i terapeutyczną w przypadkach guzów piersi budzących niepokój onkologiczny. 2. Dobrze wykonana biopsja chirurgiczna z zachowaniem odpowiedniego marginesu tkanek zdrowych może być pierwszym etapem skutecznego leczenia oszczędzającego w raku gruczołu piersiowego.