

2019

Oct 15-18

Hands-on Screening Course

combined with

Multimodality Diagnosis of Breast Diseases with Emphasis on Breast MRI

SIGTUNA

Hotel Kristina

*Rektor Cullbergs väg 1, Sigtuna, 19323,
Sweden*

Faculty

LÁSZLÓ TABÁR, MD,FACR (Hon) Course Director

Professor emeritus of Radiology

and

MATS INGVARSSON, MD.

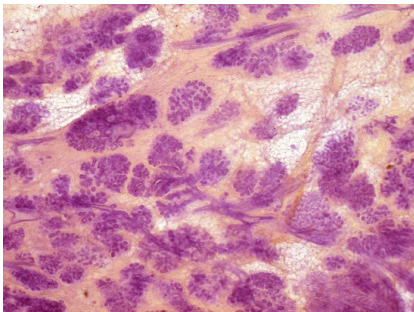
Headphysician, Dept. of Mammography, Falun, Sweden

Designed for:

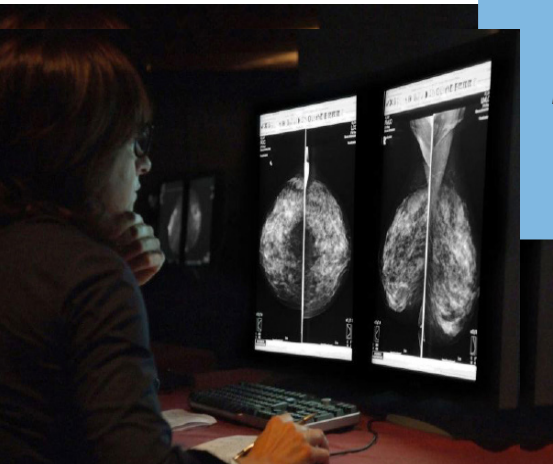
Radiologists

This course teaches how to find breast cancer in its early stages and how to arrive at the correct diagnosis of breast diseases using the multimodality approach.

3D image of the breast tissue



The normal TDLUs have bud-like acini





2019

Hands-on screening course combined with
Multimodality Diagnosis of Breast Diseases with
Emphasis on Breast MRI

László Tabár, MD, FACR (Hon)
and
Mats Ingvarsson, MD

Course Overview:

- * This Hands-on Breast Imaging course, led by László Tabár, MD, FACR, (Hon) will offer radiologists **250 full field digital mammography cases for screening during the official course hours.**
- * Normal mammograms will be mixed with proven abnormal cases.
- * Reading will take place at high resolution work stations.
- * During the course the attendees will progressively improve their interpretive expertise, as they learn the full spectrum of normal breast images, with all findings explained with the help of 3-dimensional histology images.
- * These skills will lead to fewer call-backs and greater confidence in reading large number of mammograms.
- * Feedback and discussion of every case by the Faculty after every reading session.
- * Special emphasis will be placed on finding early phase breast cancers.
- * All abnormal cases are fully worked up and the complete imaging workup will be presented in detail, including ultrasound, MRI and large section histopathology.
- * Special sessions will describe the current clinical roles of breast MRI, review the image patterns of malignant breast diseases, correlate the findings with the underlying pathology.
- * Description of the recent technical advances in breast MRI, including imaging protocols and techniques needed to produce high quality breast MRI images.
- * Teaching how to characterize breast lesions utilizing multimodality imaging, breast MRI included.
- * Learning MRI reading and interpretation at high resolution workstations.



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Program Objectives:

1. Learn the full spectrum of normal mammograms through detailed explanation of the mammographic images.
2. Progressive improvement of the attendees' interpretive expertise.
3. Increase confidence in reading large numbers of full field digital mammograms at lower call-back rates.
4. Improve skills in detecting early phase breast cancer at digital mammography screening.
5. Greater proficiency in working up screen-detected findings.
6. Appreciate the clinical relevance of unifocal/multifocal/diffusely infiltrating breast cancers.
7. Emphasize the importance of multimodality approach to workup cases in a multidisciplinary environment.
8. Assess the clinical role of breast MRI in patient selection and in improving the detection, diagnosis and treatment of breast diseases.
9. Characterize breast lesions utilizing multimodality imaging, breast MRI included. The goal is to accurately and efficiently identify, interpret and report on breast MRI examinations

Attendees interpreting 250 digital mammography examinations will receive a **Certificate** confirming the actual number of mammographic and breast MRI examinations read under the direct supervision of an interpreting physician.



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FACULTY



László Tabár, M.D., F.A.C.R. (Hon).

Course Director

*Professor emeritus of Radiology,
Department of Mammography,
Central Hospital
Falun, Sweden*



Mats Ingvarsson, MD.

Medical Director

*Department of Mammography,
Central Hospital
Falun, Sweden*

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1st DAY

Lectures between 8:30 AM - 12:00 PM for all attendees **Break at 10:00 AM**

8:30 INTRODUCTION

8:45 DIDACTIC LECTURES COVERING: HOW TO READ A MAMMOGRAM? THE BASIS FOR EFFICIENT INTERPRETATION OF THE MAMMOGRAPHIC IMAGE

- Correlative 3-dimensional, subgross anatomy and mammography of the normal breast
- How to read a mammogram, how to interpret every nodular and linear density we see on the image.

MAMMOGRAPHIC PARENCHYMAL PATTERNS

- Practical implication, problems and solutions. Mammographic patterns and the risk of developing breast cancer. Understanding the mammograms of dense breasts.

HOW TO FIND THE INVASIVE BREAST CANCER WHEN IT IS STILL SMALL. SCREENING COMBINED WITH AN ANALYTICAL APPROACH FOR THE DIFFERENTIAL DIAGNOSIS OF STELLATE/SPICULATED AND CIRCULAR/OVAL-SHAPED LESIONS

- A systematic method for viewing mammograms.
- Areas on the mammogram where most breast cancers will be found
- Viewing "difficult to read" mammograms and viewing relatively easy-to-read cases

THE PROBLEM OF VIEWING THE MAMMOGRAMS OF WOMEN WITH DENSE BREASTS.
DEMONSTRATION OF A POTENTIAL SOLUTION



Lunch 12:00 PM - 1:00 PM



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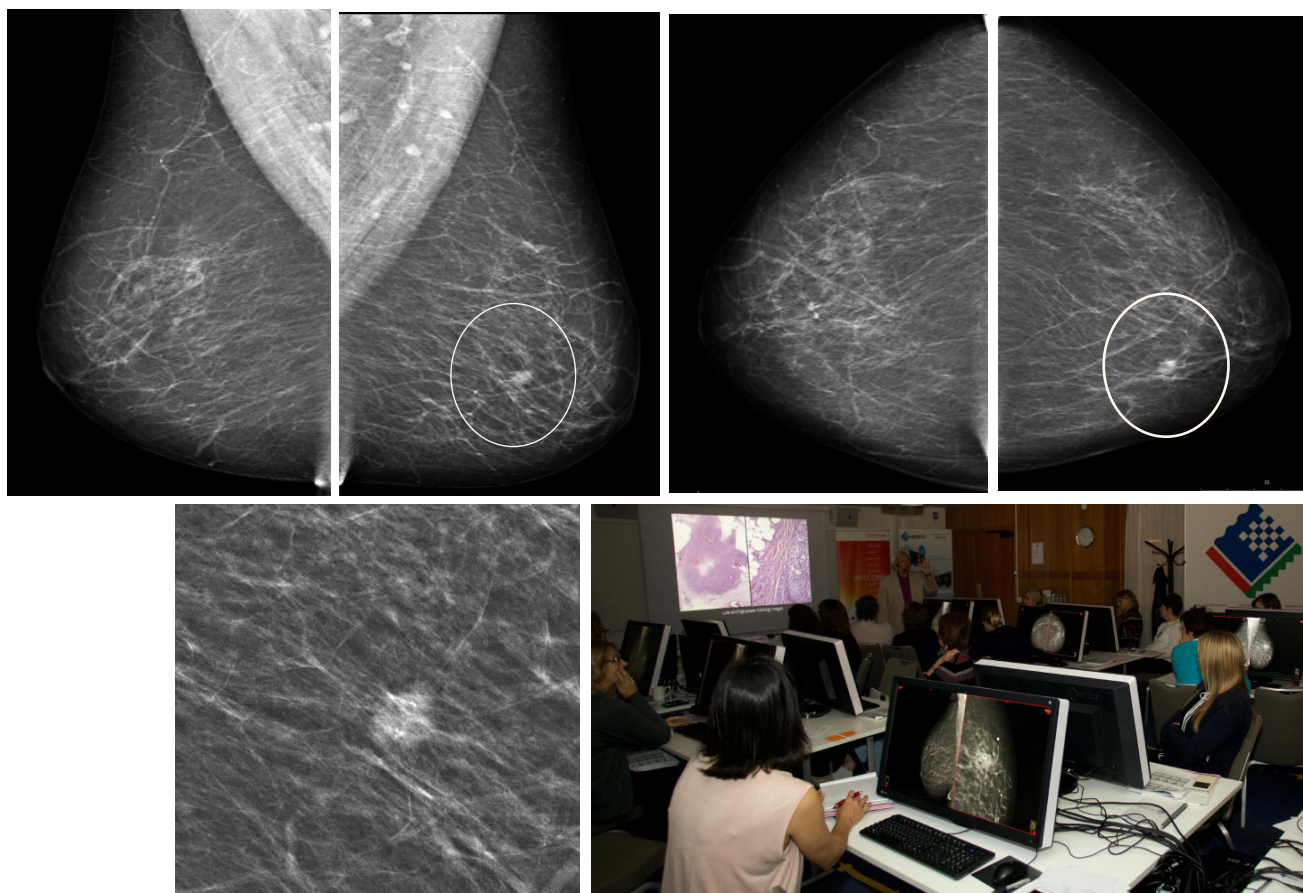
László Tabár, MD, FACR (Hon)
and
Mats Ingvarsson, MD

1st day Afternoon program between 1:00 PM - 5:30 PM **Breaks at 2:15 and 3:30 PM**

1:00 - 2:15 HANDS ON SCREENING. SESSION 1.

Break: 2:15 - 2:30 PM

2:30 - 3:30 DISCUSSION OF THE SCREENING CASES FROM SESSION 1



Break: 3:30 - 3:45 PM

Hands-on training in screening

3:45 - 5:00 INTRODUCTION to CONTRAST ENHANCED BREAST MRI. Basic techniques and interpretation. [Mats Ingvarsson](#) ([see page VII](#))

5:00 PM End of Day 1

7:00 PM Course dinner



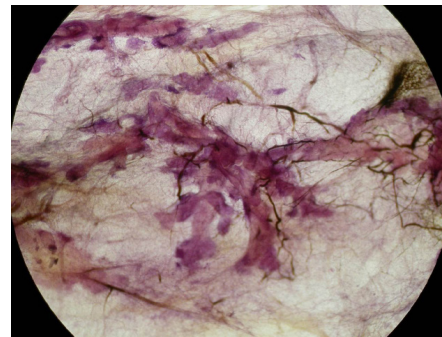
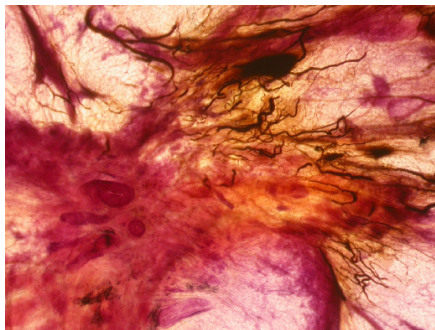
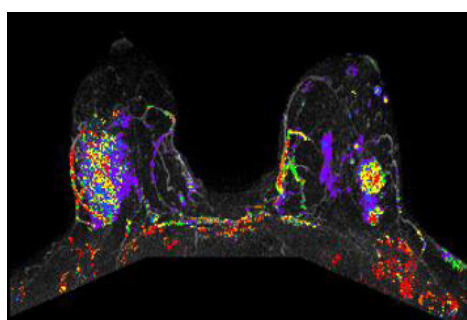
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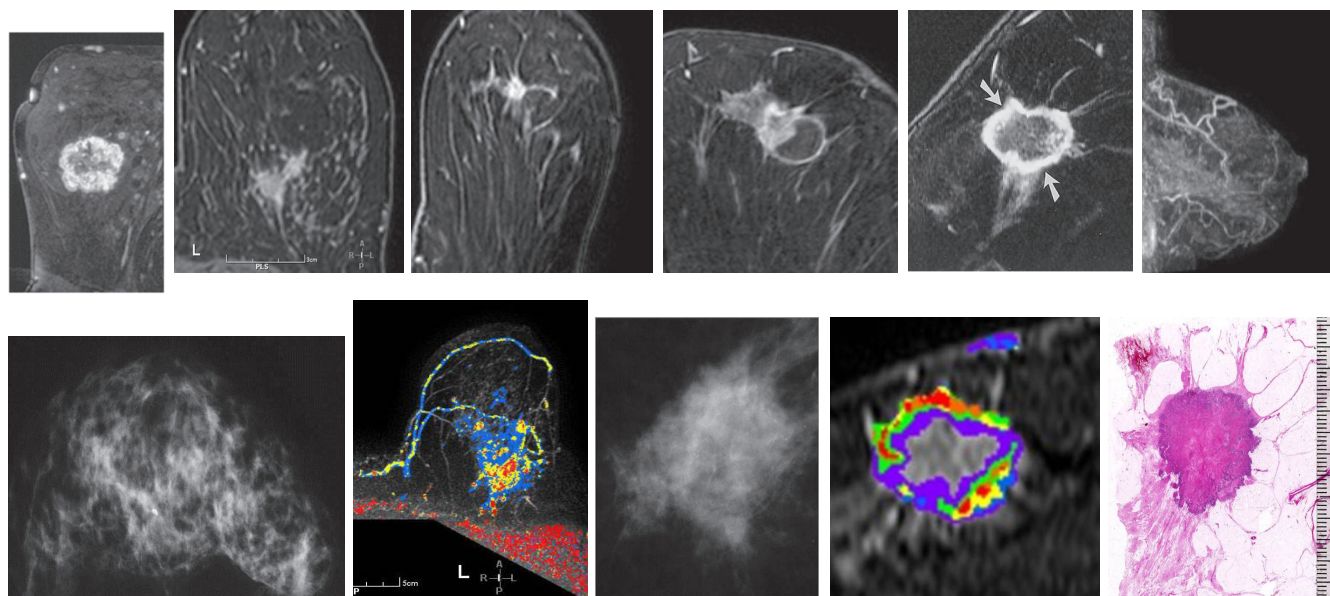
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Mats Ingvarsson, MD

1st day Afternoon program - photographs assisting the MRI session

INTRODUCTION to CONTRAST ENHANCED BREAST MRI. **Basic techniques.** - Mats Ingvarsson



BASICS of BREAST MRI INTERPRETATION - Mats Ingvarsson



We would like to thank EIZO and Carestream for providing the viewing stations and the engineering expertise at this teaching seminar.



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2nd DAY AM Hands-on screening and didactic lecture series 8:00 AM - 12:00 PM

8:00 - 9:15 HANDS ON SCREENING WITH MAMMOGRAPHY. SESSION 2.

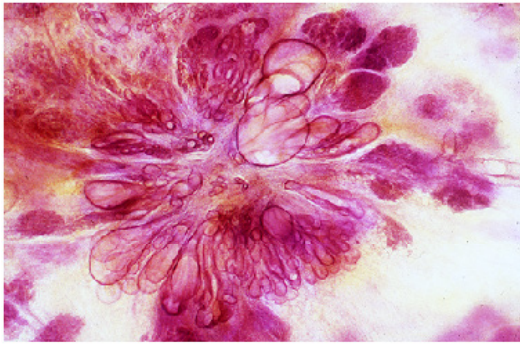
9:15 - 9:30 and 10:30 - 10:45 AM Breaks

9:30 -10:30 DISCUSSION OF THE SCREENING CASES FROM SESSION 2

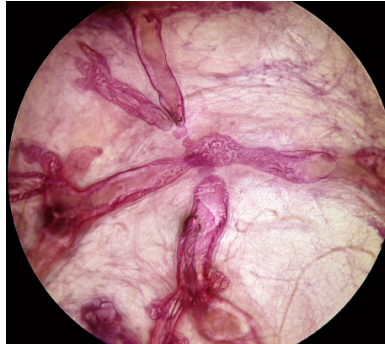
10:45 **DIDACTIC LECTURE SERIES COVERING THE FOLLOWING TOPICS:** The site of origin of the breast cancer influences diagnosis, choice of treatment and patient outcome.

NON-CALCIFIED ASYMMETRIC DENSITIES WITH architectural distortion on the mammogram.

ANALYSIS of BENIGN RADIATING STRUCTURES on the mammogram, originating in the ducts: Radial scar



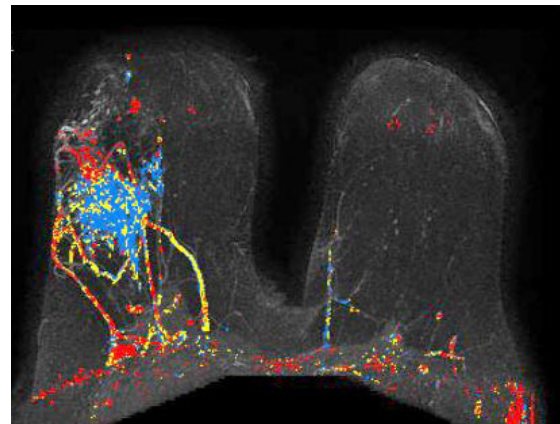
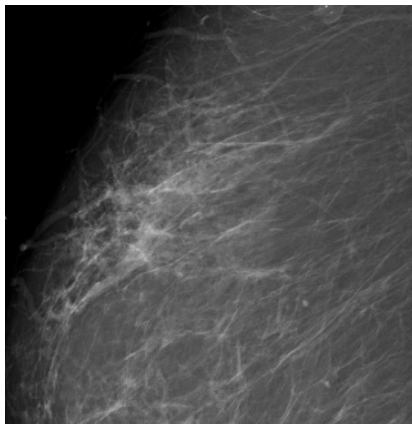
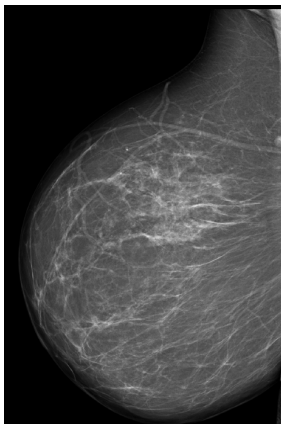
Radial scar



Neoductogenesis

ANALYSIS of MALIGNANT LESIONS PRESENTING as RADIATING STRUCTURES on the mammogram. Clinical presentation, mammographic appearance and outcome

1) **Duct forming invasive carcinoma / Neoductogenesis** cases presenting on the mammogram as architectural distortion. **The role of MRI in diagnosing diffuse breast carcinoma**



Lunch 12:00 PM-1:00 PM

Non-calcified architectural distortion: extensive duct forming invasive cancer

VIII



2019

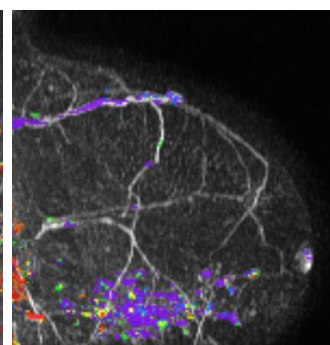
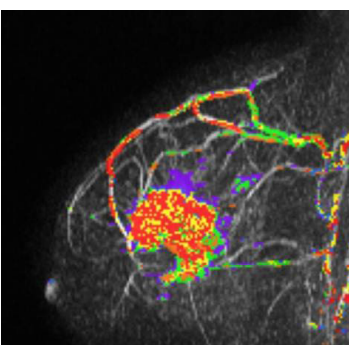
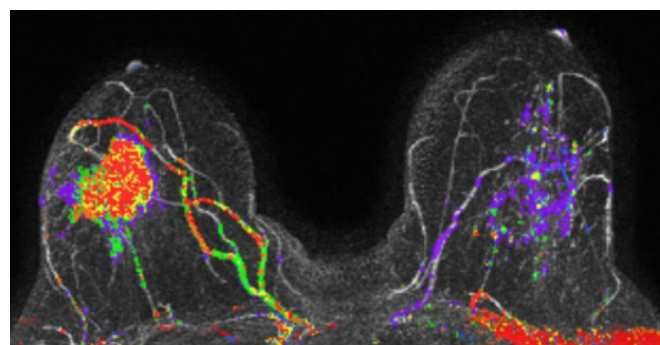
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2nd day afternoon

Mammography and MRI Interpretation sessions at workstations
between 1:00 PM - 5:00 PM

1:00 - 2:15 MRI Interpretation sessions at workstations - [Mats Ingvarsson, MD](#)



2:15 - 2:30 and 3:30 - 4:00 PM Breaks

2:30 - 3:30 HANDS ON SCREENING WITH MAMMOGRAPHY. SESSION 3.

4:00 - 5:00 DISCUSSION OF THE SCREENING CASES FROM SESSION 3

5:00 End of Day 2



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3rd DAY AM Hands-on screening and didactic lecture series 8:00 AM - 12:00 PM

8:00 - 9:00 HANDS ON SCREENING WITH MAMMOGRAPHY. SESSION 4.

9:00 - 9:15 and 10:15 - 10:30 AM Breaks

9:15 -10:15 DISCUSSION OF THE SCREENING CASES FROM SESSION 4

10:00 ALGORITHM FOR CLASSIFYING BREAST DISEASES ACCORDING TO THEIR SITE OF ORIGIN

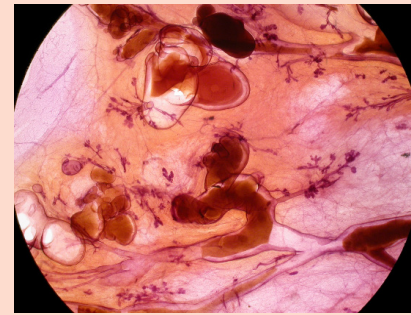
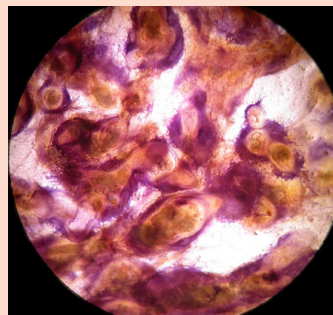
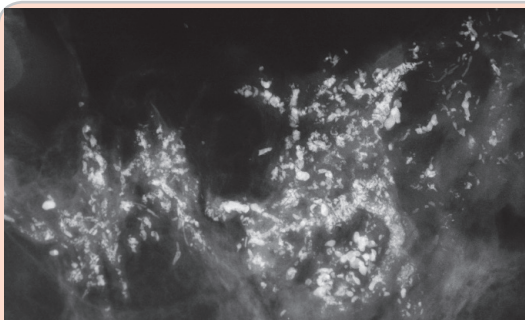
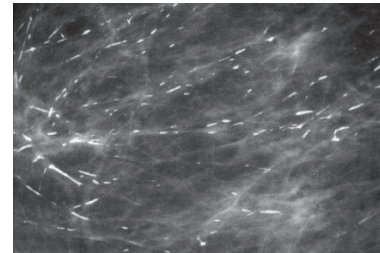
See pages X and XI.

Benign plasma cell mastitis type calcifications in major ducts

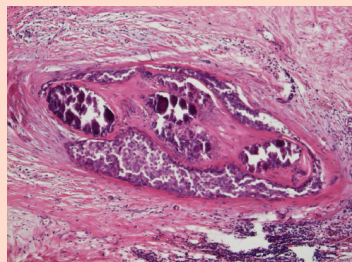
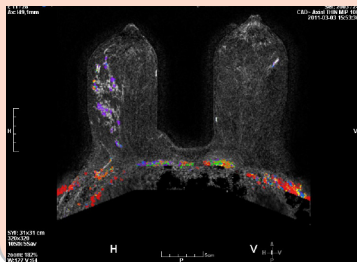
BREAST DISEASES ORIGINATING IN THE MAJOR DUCTS

- **Benign type calcifications** originating in the major ducts
 - a) Secretory disease type calcifications
- **Malignant type calcifications** originating in the major ducts:

Four different types of calcifications: a) fragmented casting type, b) dotted, snake skin-like,
c) skipping stone-like and d) pearl necklace-like



a) Fragmented casting type calcifications. [Example 1.](#)



[Example 2.](#)

Fragmented casting type
calcifications (breast
cancer of ductal origin
DAB).

Lunch 12:00 PM - 1:00 PM



2019

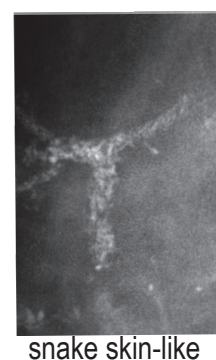
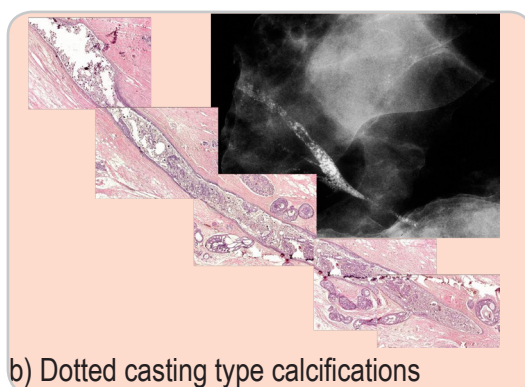
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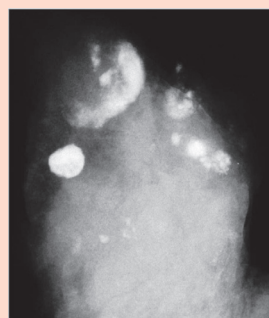
3rd DAY AM ALGORITHM FOR CLASSIFYING BREAST DISEASES ACCORDING TO THEIR SITE OF ORIGIN

Images supporting the morning lecture:

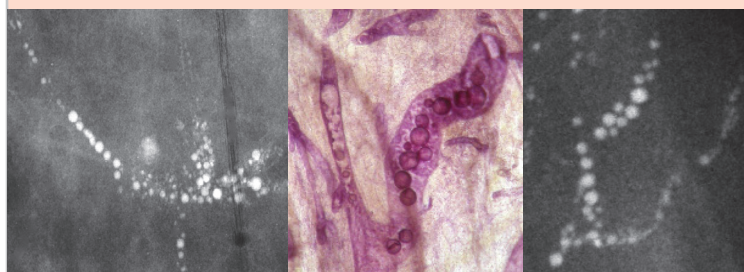
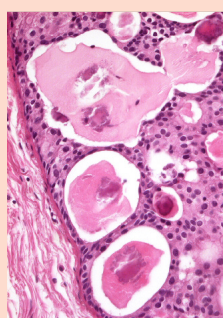
ANALYSIS of CALCIFIED MALIGNANT BREAST LESIONS ORIGINATING in the MAJOR DUCTS, cont.
Clinical presentation, mammographic appearance and patient outcome. **The role of MRI in diagnosing diffuse breast carcinoma** - Tabar L, Ingvarsson, M.



- * The concept of **neoductgenesis**. Long-term follow-up results. New aspects, correct terminology.
- * The role of breast MRI examination in demonstrating the extent of Gr 3 *in situ* carcinoma. - M Ingvarsson
- * Mammographic /3D histologic correlation helping to explain the underlying pathophysiology and outcome.



c) Skipping stone-like calcifications



d) Pearl necklace-like calcifications

Practice of calcification analysis. Faculty-audience interaction.

Lunch 12:00 PM - 1:00 PM



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3rd DAY PM MRI interpretation and hands-on screening **Breaks at 2:15 and at 3:30 PM**

1:00 - 2:15 MRI INTERPRETATION SESSION AT WORKSTATIONS.



2:30 - 3:30 HANDS ON SCREENING WITH MAMMOGRAPHY. SESSION 5.

4:00 -5:00 DISCUSSION OF THE SCREENING CASES FROM SESSION 5

5:00 PM End of Day 3



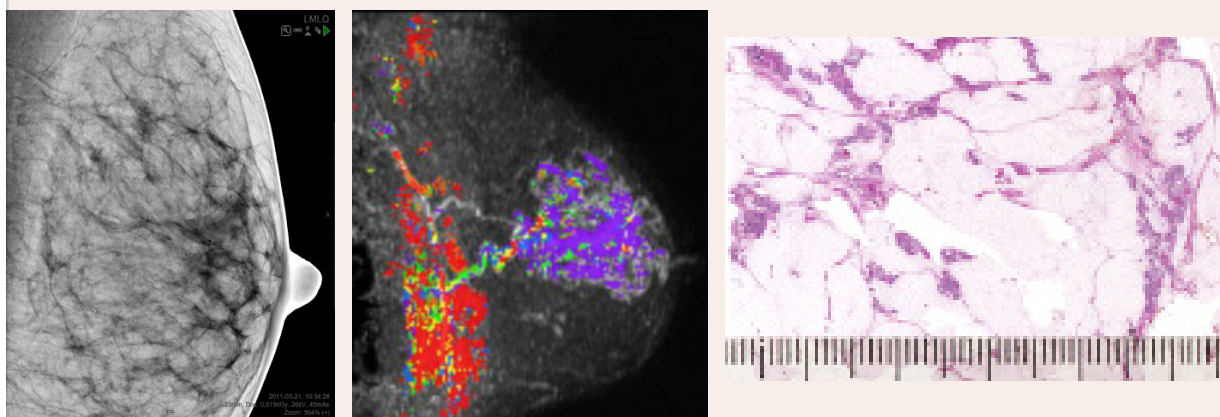
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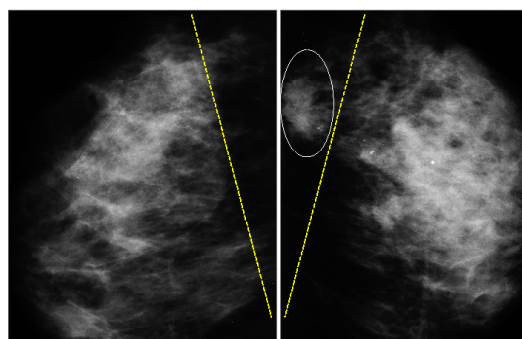
László Tabár, MD, FACR (Hon)
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3rd DAY PM MRI interpretation and hands-on screening

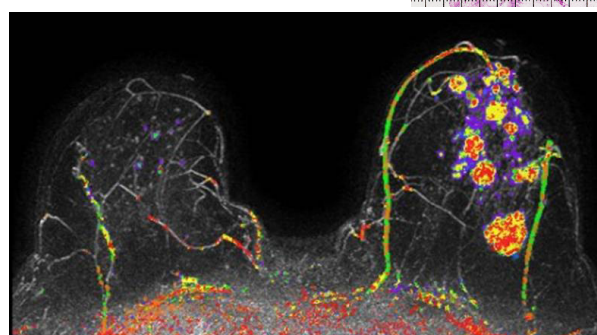
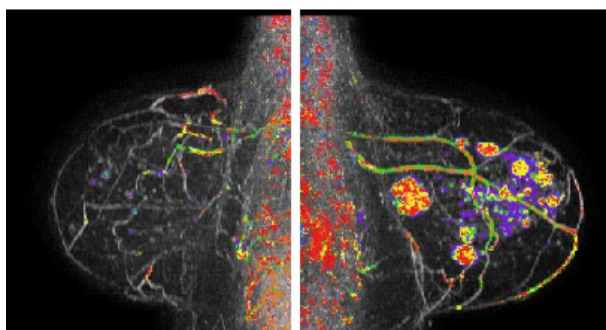
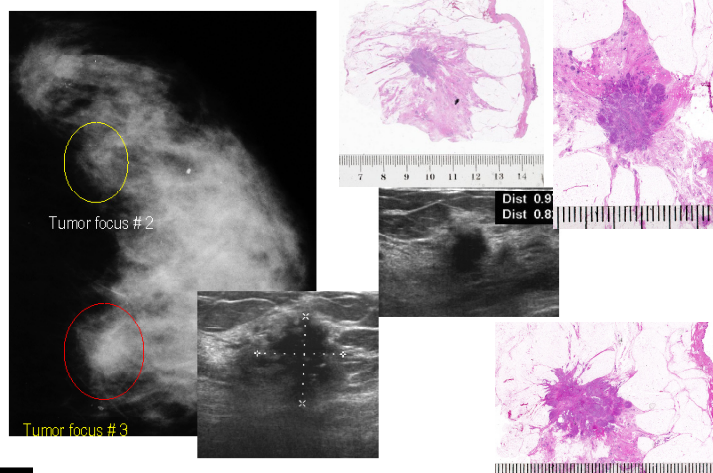
Cases supporting the MRI workshop



Subtle mammography finding / MRI shows that the entire lobe is filled with a diffuse breast cancer, confirmed at histology



Multifocal invasive and in situ carcinoma
on an area measuring 180X60 mm pN 4/9



5:00 PM End of Day 3



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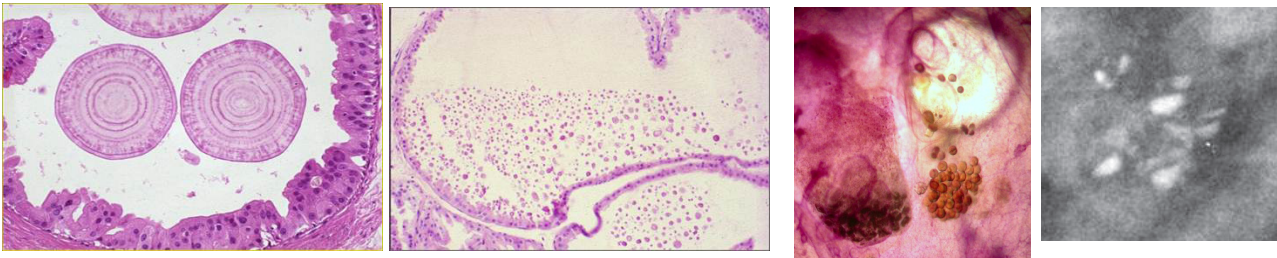
4th day Morning program between **8:00 AM - 12:00 PM** Breaks at 9:15 and at 10:00 AM

8:00 - 9:00 **HANDS ON SCREENING. SESSION 6** a) Normal cases mixed with b) cases having non-calcified architectural distortion, (both duct forming invasive carcinoma and diffusely infiltrating breast cancers) c) calcifications localized within the major ducts and TDLUS. d) 1-14 mm unifocal and multifocal stellate and circular tumors.

9:15-10:00 DISCUSSION OF THE SCREENING CASES FROM SESSION 6

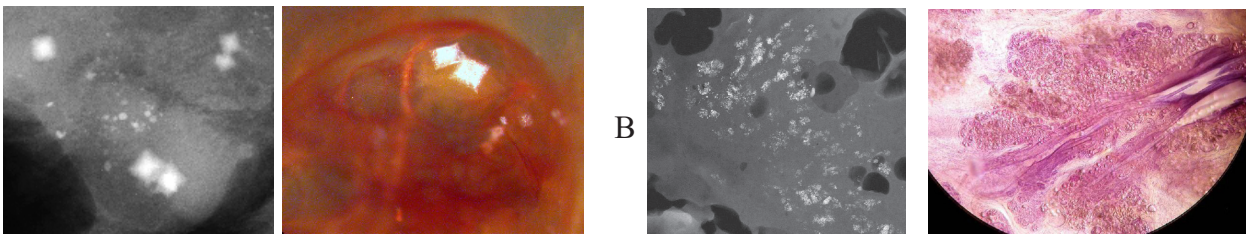
10:15 **ALGORITHM FOR CLASSIFYING BREAST DISEASES ACCORDING TO THEIR SITE OF ORIGIN**

- **Benign breast diseases originating in the TDLU** and associated with calcifications on the mammogram
 - **Fibrocystic change. Fibroadenoma. Different types of adenosis.** Understanding pathophysiology leading to calcified and non-calcified hyperplastic breast changes.



A

- Conventional and 3D histology images of small breast cysts containing sediment of psammoma body-like calcifications, seen as "teacup-like calcifications" on the mammogram.
- Detailed analysis of calcifications associated with hyperplastic breast changes Weddellites (A), powdery calcifications (B), pleomorphic calcifications on the mammogram.



B

12:00 Lunch



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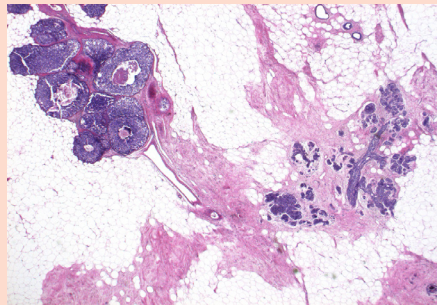
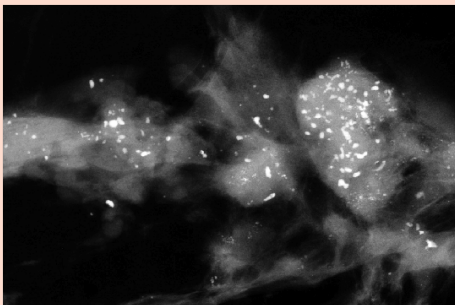
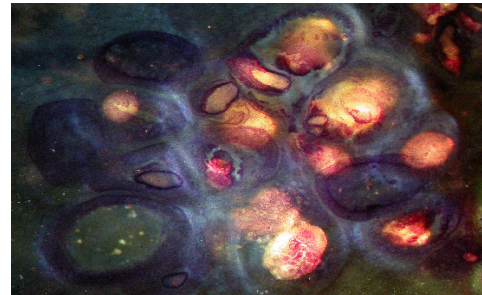
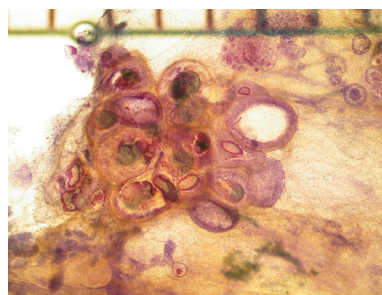
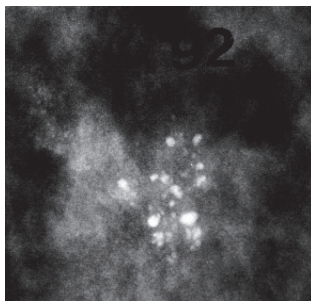
László Tabár, MD, FACR (Hon)
and
Mats Ingvarsson, MD

4th day

Afternoon program between 1:00 PM - 4:00 PM Breaks at 2:00 and at 3:00 PM

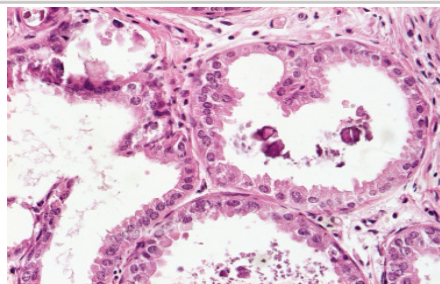
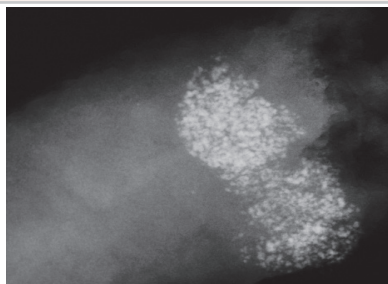
1:00 PM THE DIDACTIC LECTURE SERIES WILL COVER THE FOLLOWING TOPICS:

Grade 2 cancer *in situ*: Mammographic / 3-D histologic / MRI correlation of cases with crushed stone-like/pleomorphic calcifications on the mammogram.



Mammographic / histologic correlation of pleomorphic calcifications

- The morphologic analysis of calcifications representing a less aggressive carcinoma:
Grade 1 / well differentiated CIS



Grade 1 *in situ* carcinoma:
Mammographic / 3D histologic / MRI correlation
of cases with powdery calcifications on the mammogram.

4:00 PM End of Course



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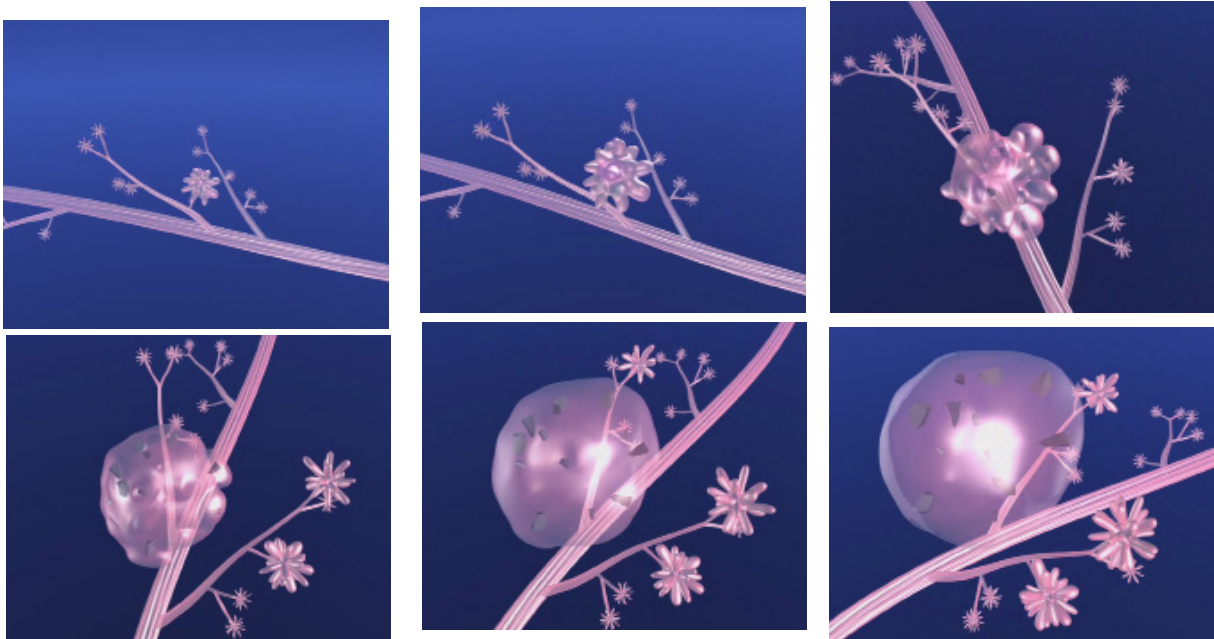
For more information and registration please contact:

**Mammography Education, Inc., 4429 E. Spur Drive
CAVE CREEK, AZ 85331, USA. Ms. Donna Sokolik**

Phone: (480) 419 0227, Fax: (480) 419 0219, E-mail: info@mammographyed.com

Internet: www.mammographyed.com

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Computer simulation images of the development of Grade 2 *in situ* carcinoma within the TDLU. The lobule becomes gradually distended and deformed. Calcifications are formed within the necrotic debris and are seen on the mammogram as **crushed stone-like calcifications**.



2018

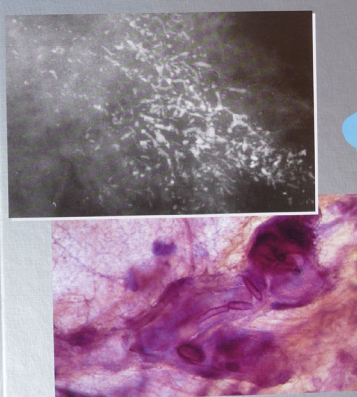
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and
Mats Ingvarsson, MD

Breast Cancer Early Detection with Mammography

Casting Type Calcifications: Sign of
a Subtype with Deceptive Features

László Tabár
Tibor Tot
Peter B. Dean

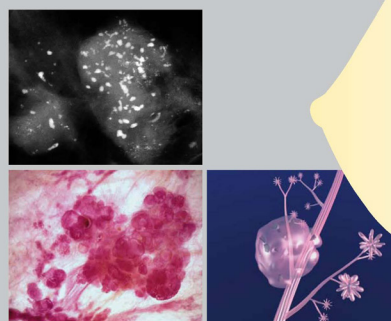


Thieme

Breast Cancer Early Detection with Mammography

Crushed Stone-like Calcifications:
The Most Frequent Malignant Type

László Tabár
Tibor Tot
Peter B. Dean



Thieme

www.thieme.com

Breast Cancer The Art and Science of Early Detection with Mammography

László Tabár
Tibor Tot
Peter B. Dean



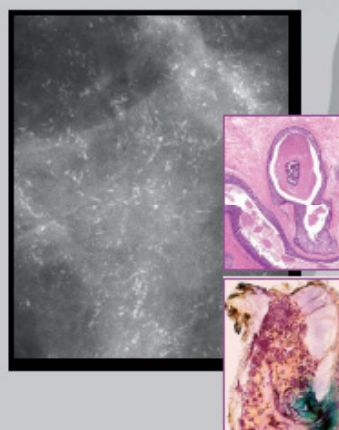
Immunohistochemistry,
Immunofluorescence,
Immunopathologic Correlation

Thieme

Teaching Atlas of Mammography

László Tabár
Peter B. Dean

With the contribution of Tibor Tot
4th edition



Thieme

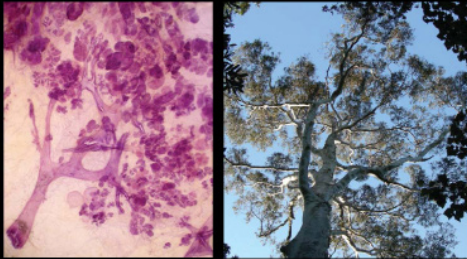


2018

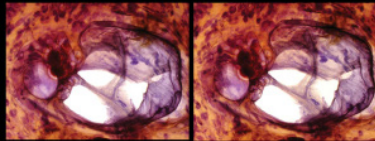
Hands-on screening course combined with
Multimodality Diagnosis of Breast Diseases with
Emphasis on Breast MRI

László Tabár, MD, FACR (Hon)
and
Mats Ingvarsson, MD

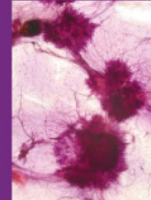
László Tabár, MD
Tibor Tot, MD, Peter B. Dean, MD



Understanding the Breast in Health and Disease



In 3D



Multifocal breast cancer



Sea urchins

In 3D



In situ ductal carcinoma

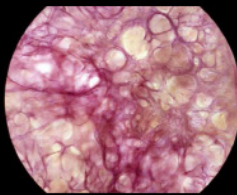


Banana flower

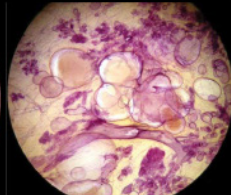
The basic structural elements of the female breasts are illustrated here in true 3-dimensional (3D) images and described in this Volume I by three breast cancer experts with decades of experience in the diagnosis of breast diseases. These images provide the best way to understand the great variability of the normal breast structure and the changes brought about by benign and malignant diseases.

www.mammographyed.com

László Tabár, MD,
Tibor Tot, MD, Peter B. Dean, MD,
Miklós Tarján, MD

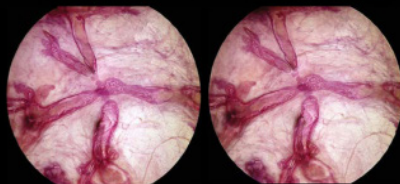


cysts in a prostate

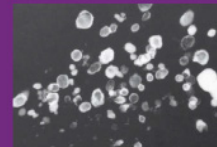


breast cysts

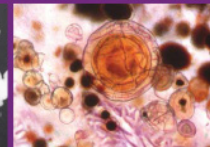
Prostate and Breast: Brother and Sister Organs



In 3D



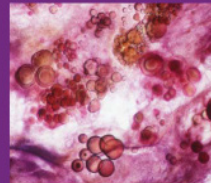
Prostate calcifications



Laminated calcifications
in the prostate



In 3D



Laminated calcifications in
the breast



Rowan berries

Even as the risk of getting prostate and breast cancer is rising, early detection through screening and treatment in an early stage are significantly lowering the risk of dying from these diseases. This series of 3D books aims to empower both men and women with knowledge about their health. Although all of us are at risk of developing cancer or less serious problems in one or the other of these two organs, education will help us seek the benefits provided by modern health care and expect excellence from health care providers.

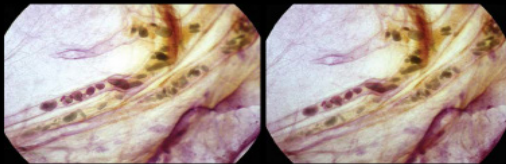


2018

Hands-on screening course combined with
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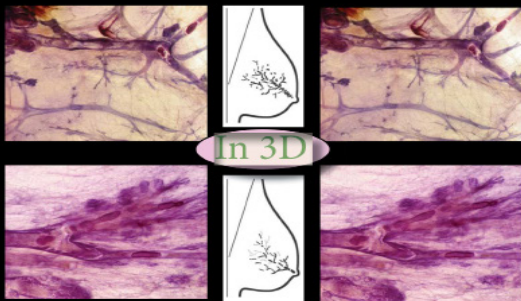
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and
Mats Ingvarsson, MD

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Tibor Tot, MD, Peter B. Dean, MD

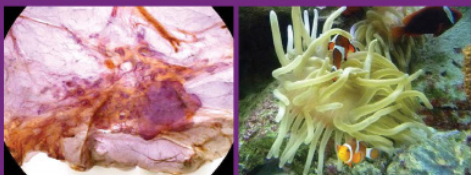


Breast cancer of ductal origin with microcalcifications

Ductal Adenocarcinoma of the Breast (DAB), Part 1



In 3D

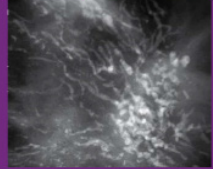


8 mm poorly differentiated invasive breast cancer associated with neoductogenesis (DAB)

A photograph reminiscent of neoductogenesis with associated tiny invasive tumors



In 3D



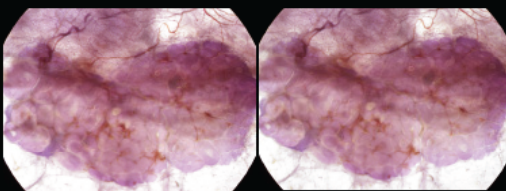
Fragmented casting type calcifications make the cancerous duct-like structures visible on the mammogram.



Neoductogenesis is a frequent phenomenon in the plant world

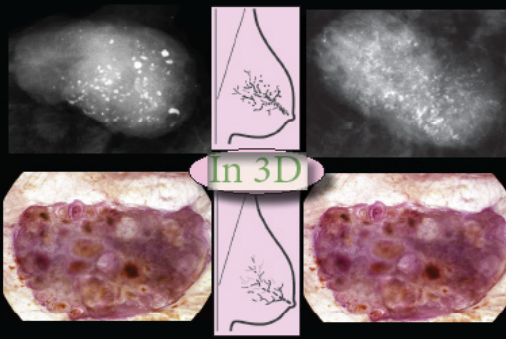
The mammogram is a true representation of the structural changes induced by the genetic constellation of each breast cancer subtype. The mammographic/MRI/ultrasound presentation of a particular subtype reflects the nature and extent of the underlying disease process, and when correctly interpreted, can guide patient management and help in predicting the long-term outcome. This information is available at the moment of diagnosis, without the additional expense and time necessary for molecular and immunohistochemical analysis.

László Tabár, MD
Tibor Tot, MD, Peter B. Dean, MD

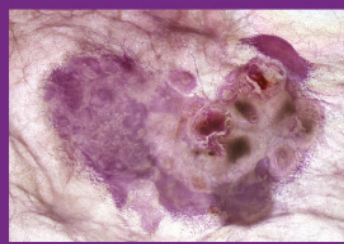


An axillary lymph node populated with metastases mimicking *in situ* cancer

Ductal Adenocarcinoma of the Breast (DAB), Part 2

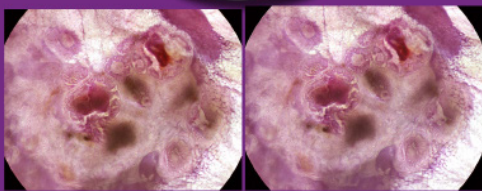


In 3D



Metastases within an axillary lymph node mimicking cancer *in situ*

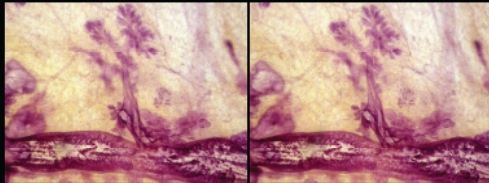
In 3D



Stereoscopic image pair of the DAB with calcifications within a lymph node

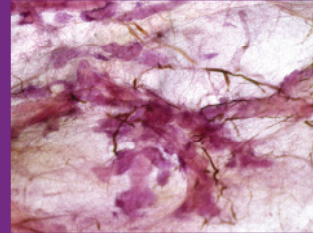
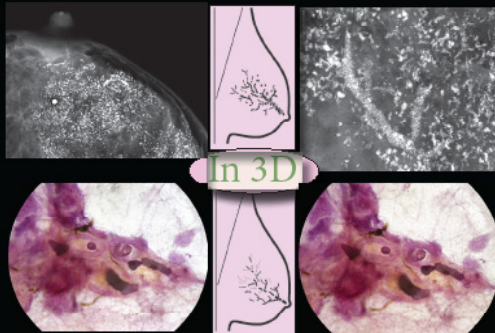
Breast cancers originating from the major milk ducts (breast cancer of ductal origin, DAB) occasionally cause axillary lymph node metastases which are similar in appearance at histology to DAB in the breast. Regardless of whether or not the myoepithelial cell layer is demonstrable, the decisive question is how do the duct-like structures grow inside the lymph nodes? Although the histopathologic appearance will be termed by pathologists as invasive cancer, i.e., when found in the prostate or in the axillary lymph node(s), a similar histopathologic appearance is termed "DCIS" when found in the breast. In reality, we face "duct forming invasive cancer" with poor outcome (neoductogenesis) in the breast, in the prostate and in the axillary nodes.

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Tibor Tot, MD, Peter B. Dean, MD



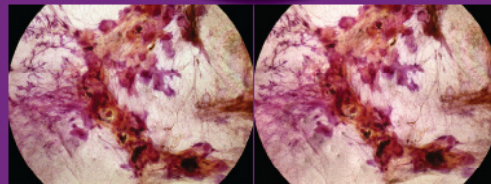
Micropapillary breast cancer of ductal origin associated with a normal TDLU

Ductal Adenocarcinoma of the Breast (DAB), Part 3



Neoductogenesis (DAB)
associated with angiogenesis

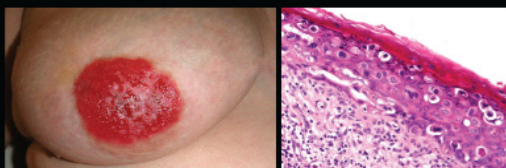
In 3D



Normal atrophic ducts and cancerous, distended ducts side by side

Breast cancers that originate in the major milk ducts (ductal adenocarcinoma of the breast, DAB) are diffuse and often extensive. The disease may occupy an entire lobe from the nipple to the chest wall, and frequently extends close to the skin. For these reasons, breast conserving surgery and skin or nipple sparing mastectomy of DAB cases carry a higher risk of local/regional/distant recurrence. In addition: 1) a considerable portion of the disease may lack calcifications, often occult for the imaging methods. 2) This subtype of breast cancer is less responsive to postoperative radiotherapy.

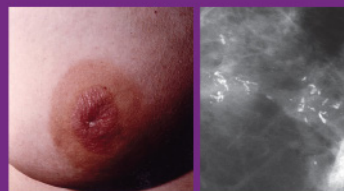
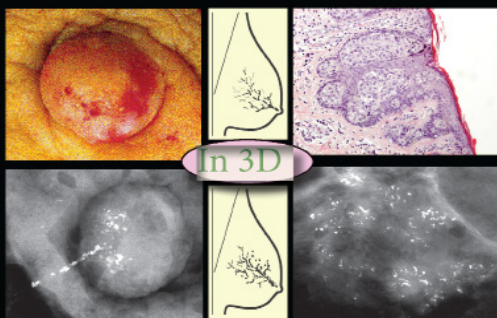
László Tabár, MD
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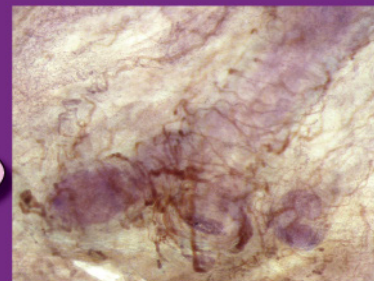
Paget's disease of the nipple

Paget's cells in the epidermis of the nipple

Ductal Adenocarcinoma of the Breast (DAB), Part 4



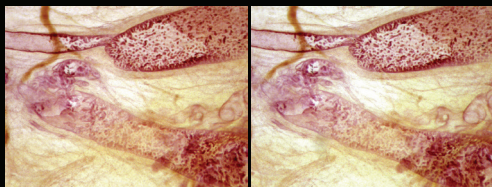
Paget's disease of the nipple and breast cancer of ductal origin



Cancer-filled duct in Paget's disease with angiogenesis

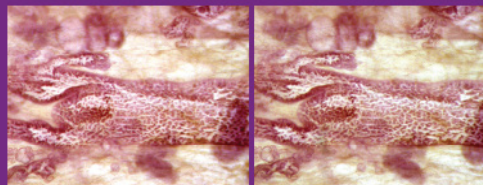
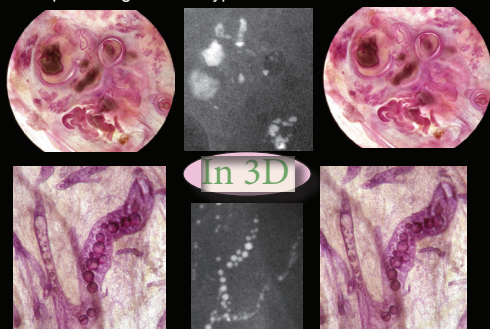
One of the features which is unique to breast cancers originating from the major ducts (DAB) is **Paget's disease of the breast**. It was first described by the British pathologist, James Paget in 1874. He described 14 cases of breast cancer associated with an eczema-like skin change of the nipple and areola. Almost 1% of all breast cancers present with Paget's disease of the nipple, and the diagnosis is confirmed by histologically demonstrating the Paget cells of the affected epidermis. The underlying breast cancer can be best demonstrated by combining all breast imaging methods. Of these, breast MRI is the most sensitive, showing the presence and true extent of the underlying DAB, often before calcifications can be detected on the mammogram.

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Tibor Tot, MD, Peter B. Dean, MD



Ductal Adenocarcinoma of the Breast (DAB), Part 5

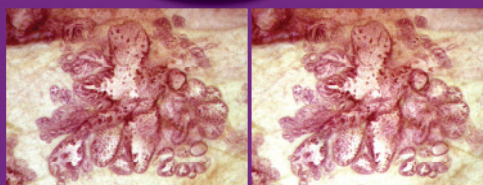
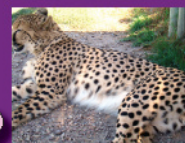
Fluid producing DAB subtypes associated with calcifications



Fluid producing micropapillary breast cancer of ductal origin (DAB)



In 3D



Neoductogenesis in micropapillary breast cancer of ductal origin (DAB)

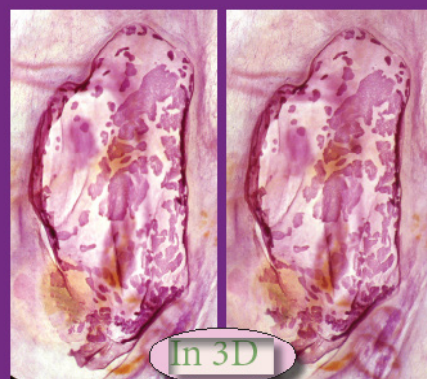
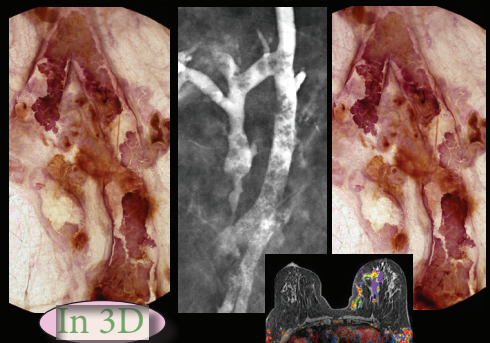
This volume describes the subtypes of breast cancers that arise in the major ducts, produce a viscous, proteinaceous fluid. Little or no necrosis is present. The calcifications formed within the fluid have characteristic, but deceptively benign appearance, although the malignancy may extend throughout an entire lobe. This book will help identify these deceptive cases through correlating the mammographic/ultrasound/MRI presentation with large / thick section (3D) histology.

László Tabár, MD
Tibor Tot, MD, Peter B. Dean, MD

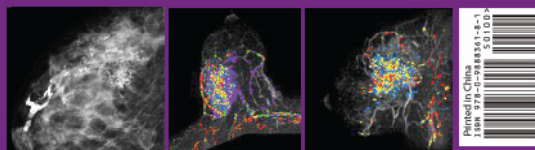


Bloody and serous nipple discharge

Ductal Adenocarcinoma of the Breast (DAB), Part 6



Fluid producing micropapillary breast cancer of ductal origin (DAB)



Spontaneous unilateral serous or bloody nipple discharge can be an alarming clinical symptom for the patient and also, it may cause considerable differential diagnostic problem for the radiologist. This volume of our 3D book series correlates the imaging findings (mammography / breast ultrasound / breast MRI) with large thin- and large thick section (subgross, 3D) histology in cases when the underlying cause of the discharge is fluid-producing breast cancer originating from the major ducts (DAB).



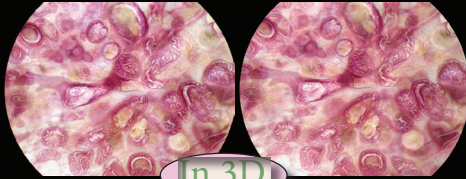
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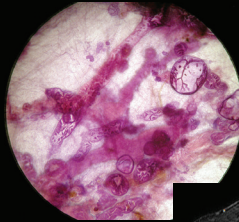
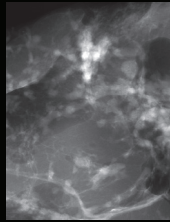


In 3D

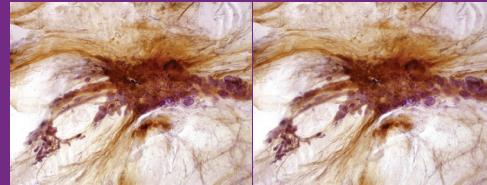
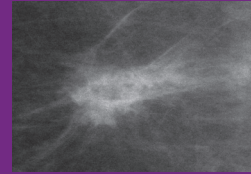
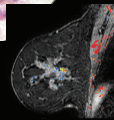
Breast cancer originating from the major ducts

Ductal Adenocarcinoma of the Breast (DAB), Part 7

Architectural distortion on the mammogram without calcifications or
nipple discharge



Mammographic-MRI-subgross (3D) histologic
correlation of this extensive micropapillary cancer
originating from the major ducts presenting as
architectural distortion.



Architectural distortion on the mammogram without calcifications or
nipple discharge

In 3D



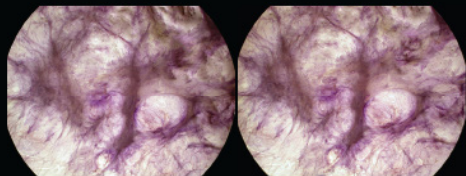
There are two main groups of diffuse breast cancers presenting on the mammo-
gram as large regions of architectural distortion; these account for about 25%
of all breast cancers and tend to have a poor outcome: 1) **Neoductgenesis**, i.e.
"duct forming invasive carcinoma", the topic of this volume, often erroneously
diagnosed as "DCIS", and 2) **Diffusely infiltrating breast cancer**, the topic of
Vol. XI.

This volume demonstrates the DAB subgroup where the unnaturally high con-
centration of abnormal, tumor-filled ducts results in an **asymmetric density**
with **architectural distortion on the mammogram** and often causes a pal-
pable "thickening". Detecting architectural distortion on the mammogram and
diagnosing the underlying disease correctly is a challenge for the radiologist.
Breast cancers originating from the major ducts (DAB) are characterized by the
formation of new, duct-like structures through the process of **Neoductgenesis**.

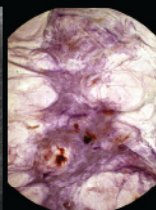
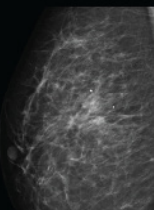
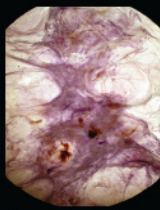
László Tabár, MD

Tibor Tot, MD, Peter B. Dean, MD

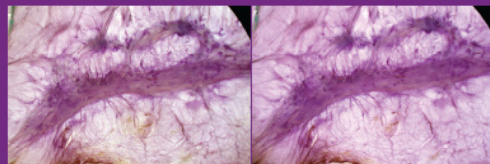
Olga Puchkova, MD



Diffusely infiltrating breast cancer, Part 1



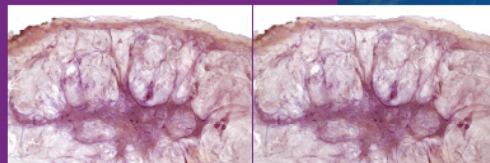
In 3D



Stereoscopic subgross (3D) image pair of a diffusely infiltrating breast cancer



In 3D



Extensive diffusely infiltrating breast cancer: the dominant feature is the
extreme amount of connective tissue with concave contours.

This volume describes a breast cancer subtype that is a substantial
challenge for the entire breast cancer team. The clinical, imaging and
outcome observations indicate that diffusely infiltrating breast cancer
represents a very unusual breast malignancy, regardless of whether it
is E-cadherin negative or positive. All aspects of the diffusely infiltrating
breast cancer suggest that it may have a site of origin different from all
other breast cancers. We propose that it originates from the mesenchy-
mal stem cells/progenitors through a complex process of epithelial-
mesenchymal transformation and predominantly mesenchymal-
epithelial transformation. Control of this unusual malignancy requires
new approaches to earlier detection and entirely new therapeutic
innovations.

REGISTRATION FORM

Screening Course Sept 18-21, 2018 in Sigtuna, Sweden

First name:

Surname:

Complete address, country included:

E-mail address:

Telephone (work or cell):

Address / name of Hospital or Breast Center:

Tuition: 9,800.- SEK We need your name on the bank statement to let us know who paid

Tuition includes: Participation at the hands-on screening course (see attached course schedule), teaching course handout material, breaks and lunches and course dinner on Sept 18, 2018..

VAT (moms) registration number of the organization/Institute (Hospital, County Council) that paid the tuition.

[Preferably, please register at MEI \(www.mammographyed.com\).](http://www.mammographyed.com)

Paid to:

Alternatively, tuition can be paid to

Bank account number: 8166-1 943 800555-6

Tabár Radiologi AB, Mark: "Screening course" Account code: 6

Address: Holmgardv. 10, 19340 Sigtuna, Sweden

Org. Number: 556830-8174

IBAN number: SE94 8000 0816 6194 3800 5556

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Please mail this form together with the money transfer receipt to:
laszlo@mammographyed.com