

in the telomere capping structures, since they are pre-recombination structures. As a result, the T-loops converse into rings and, accordingly, telomeres are shortened for the length of the lost circled DNA (50–500 bp) that exceeds few times DNA loss over the end-replication problem (3–5 bp). This process can cause quick exhaustion of one or more cell telomeres and, therefore, following apoptosis of cells, in which the illegitimate activation of recombination process becomes apparent, and which can be transformed through transposons activity. Thus the telomere length is usually genomic stability indicator.

Normal cells, e.g. lymphoid cells, in which DNA recombination must take place at the certain development stages, protect own telomeres from exhaustion during these stages through the telomerase activity increasing. However, some transformed cells can escape the telomere shortening through telomerase hyperexpression or ALT-mechanism and form tumour.

Apparently, large quantity of organism cells reaches with age the threshold of illegitimate activation of silent mobile genomic elements. Following apoptosis of most of these cells causes the ageing as biological phenomenon, while the transposon-mediated transformation and surviving of part of them determines correlation between ageing and cancer appearance. Otherwise, derepression of latent mobile genomic elements should be facilitated due to disruption of links between nuclear lamina and chromatin, particularly in Hutchinson–Gilford progeria syndrome.

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Metabolic syndrome as modifiable risk factor in breast cancer

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Introduction: Hypercholesterolemia, hypertriglyceridemia, insulin-resistant diabetes and hypertension set up the Metabolic Syndrome scenario and often coexist with overweight or obesity. Metabolic Syndrome represents a condition prone to the onset of hormone-related tumours. Although there is no chance to carry out an effective primary prevention, it could be useful to reduce the weight of modifiable risk factors of breast cancer (high BMI and Metabolic Syndrome), through life-style adjustments such as low-calorie diet and physical activity.

Materials and Methods: Our study is a case-control one. Cases are represented by women with history of breast cancer, controls are constituted by healthy women, women with familial history of BC and/or women with diagnosis of border-line lesions. During routine clinical-instrumental controls, weight and height have been measured, arterial pressure and venous blood samples have been taken from each woman. BMI has been calculated as weight indicator. Analysis on arterial pressure values and biochemical results regarding glycaemic and lipidic metabolism got from blood samples have been used for Metabolic Syndrome diagnosis. Presence of at least three of the previous described metabolic alterations has been considered diagnostic for Low Grade Metabolic Syndrome, four or more of those alterations for High Grade Metabolic Syndrome. Association between these elements and breast cancer risk calculation have been performed by the means of χ -squared test and logistic regression analysis (OR 95% CI).

Results: Our current survey includes 195 cases and 351 controls. 75.1% of all women is free from any metabolic disease, 15.6% is affected by three disorders (Low Grade

Metabolic Syndrome), 9.3% is affected by four or more disorders (High Grade Metabolic Syndrome). Especially in the High Grade Metabolic Syndrome group (9.3%) there is a difference, although not statistically significant, between cases (12.3%) and controls (7.7%) respectively ($p=0.2$). OR confirms this trend for the Low Grade Group 1.04 (95% CI 0.64–1.69) and for the High Grade Group 1.69 (95% CI 0.94–3.05).

Conclusions: Metabolic Syndrome seems to play an essential role in breast cancer onset. Our goal is to implement the National Cancer Institute survey to establish statistically significant differences between cases and controls and to improve research in breast cancer primary prevention.

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Smoking during the period of time between menarche and first childbirth and breast cancer morbidity

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Numerous factors are associated with breast cancer risk. Among nonmodifiable risk factors early age at menarche and late age at first birth belongs to the group of mostly quoted. Modifiable risk factors are associated with life style. Cigarette smoking is one of these risk factors. However epidemiological and experimental works show the association between smoking and breast cancer development, no direct link has been found. The reason why early age at menarche and late age of first birth play a role in breast cancer also needs to be explained.

Material and Methods: Self made questionnaire consisting of 19 questions was the tool used in our study. 150 women with histopathologically proven breast cancer were included in the study. The age range of tested women was 35–78 years. 4 of them had incompletely filled questionnaires and were excluded from the study. So final number of responders was 146. Women were asked specific questions, about their reproductive history, smoking, time and duration (especially of smoking during the time between menarche and first childbirth) and history of their suffering from breast cancer. Analyses were performed by using STATISTICA software.

Results: There is no statistically significant difference between groups of smoking and never smoking among women suffered from breast cancer (71 and 76 cases respectively). 48 of women from smoking group smoked during the time between menarche and first childbirth.

Conclusion: Smoking during the time between menarche and first childbirth augment risk for breast cancer morbidity need take into consideration.

P13

Educating women in a resource poor area in breast cancer awareness. A pilot study of psychological consequences

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Introduction: The name cancer awareness and screening in resource poor, illiterate population has a significant psychological impact on both the people and society. To aware and screen about this disease specially breast cancer require access to a range of practical supports during survey and improve health outcomes. This study aims to map the psychological and practical support need of Thar Desert of India population in remote area. To date no research has explored the unmet needs of awareness in this resource poor

area and few studies have attempted to assess this in a population wide basis.

Methods: 1520 females identified and were invited to participate. They are assessed in the domain of literacy psychological system and information, physical and daily living, personal support and sexuality need. Fifteen need parameters were issued to all before the survey, one and six months after the program.

Results: A total of 1360 participants were enrolled. 98% were illiterate. Increase awareness about cancer which otherwise was unknown to these participants. Psychological trauma were the highest unmet need in 75% participants at one months and 10% at six months out of 15 needs. Other domains that were heightened were fear of infective pathology of this disease and sexuality.

Conclusion: The results of this study highlight that illiterate people have a number of psychology feelings about this new developing era. Frequent counseling leads to wider acceptability. The results of this study will be beneficial to assist develop services to suit the different populations.

P14

Psychological aspects of the aesthetic surgery and breast cancer diagnostics

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Goals: The aesthetic surgery is supposed to become the stimulus for positive modification of the body-image. As a result self-esteem and psychological well-being in general were expected to be experienced in women after aesthetic breast implant surgery. However the practice the breast cancer diagnostics shows the decrease of the opportunities of the early diagnostics of breast cancer in women after breast implant surgery. There is the need to consider the details of the real psychological effect of breast aesthetic surgery.

Method: 10 women who planned breast implant aesthetic surgery and 5 women who made implant 8–10 years ago were asked to fill the questionnaires regarding their “now” and “expected” or “before” and “after” self-esteem and satisfaction with the different sides of their life, including sexual affairs, family, professional, social success and other. We also used assessment and interview.

Results: There is the evidence of existential crisis and general disappointment with the self-realizations in 8 women of group, who planned aesthetic surgery. All women who had experience of breast aesthetic surgery do not report the positive changes in their life and psychological well-being, nevertheless they were satisfied with the aesthetic result in the “breast” part of their body. Women in “after surgery” group report the decrease of the physical activity after surgery and increase of the anxiety, linked with the possible implant deformation and catching cold. 4 of 5 women reported, that if it were their decision today, they never used aesthetic surgery.

Conclusion: There is no evidence of the positive shift in psychological well-being after the breast implant aesthetic surgery. The decision to get implants depends on the psychological crisis in women and needs more psychotherapy than aesthetic surgery. The risk of diagnostic difficulties of the breast cancer after aesthetic surgery isn't well founded in the values of the quality of the life.

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Environmental organochlorine pesticide pollutants in patients with benign and malignant breast disease

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Background: The estrogenic property of the organochlorine insecticides have focused attention on the possible role of these chemicals in breast cancer etiology. Though many countries have banned the use of these insecticides, in India they are still widely being used.

Objectives: To study the levels of organochlorine pesticides (DDT and HCH) in the disease breast tissue, breast adipose tissue and blood of women suffering from benign and malignant disease of breast and to find association if any between the levels of organochlorine pesticides (DDT and HCH) and cancer breast.

Methods: We conducted a case control study in thirty women and studied levels of organochlorines (DDT and HCH) in the samples obtained from the diseased breast tissue, adipose tissue of the breast and blood.

Results: The levels of organochlorine pesticides in the diseased tissue, blood and adipose tissue were significantly raised in the breast cancer patients as compared to the women with benign breast disease. It was noticed in our study that the relative risk of developing breast cancer was significantly higher in the women with highest terciles of total DDT and total HCH in their adipose tissue and diseased breast tissue samples (OR 21, 95% CI 2,983, ‘p’ 0.0052).

Conclusion: Organochlorine pesticides may have a role in the causation of breast cancer. A larger population based study needs to be carried forward to further strengthen our findings. If this association can be further defined it may be an important evidence to support legislation and control of use of pesticides containing these agents, in our country.

Screening, Early Detection

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Knowledge and practice of breast and cervical cancer screening among nurses in teaching hospitals of Shiraz – Iran

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Introduction: Since the nurses can have a major influence on the behavior of our women, they need to be knowledgeable themselves about breast and cervical cancer and the importance of early detection through screening.

Method: A cross-sectional survey was conducted to identify: (1) knowledge about breast cancer risk and screening; (2) attitudes toward cancer prevention and early detection; (3) practice of breast cancer control activities; and (4) perceived barriers to practice. Two hundred seventeen nurses in three hospitals in Shiraz, Iran, were included in the study. Data were collected through structured self-administered questionnaires.

Result: Thirty-six percent of the nurses in our sample had good knowledge, 40% had fair knowledge while 24% nurses had poor knowledge about early detection and facts related to breast and cervical cancer. 12% reporting performing breast self-exam every month, 21.7% clinical breast exam, 30% reported having a pap-smear test, of those participants 40 and older only 16.8% reported having had a mammogram in the past three years.