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 they 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.

P11
Metabolic syndrome as modifiable risk factor in breast cancer

I. Capasso[1]*, A. Crispo[2], M. Montella[2], E. Esposito[1], E. Cavalcanti[3], M. D'Aiuto[1], A. Capasso[1], A. Vecchione[1], T. Pedicini[1], G. D'Aiuto[1]. [1]Istituto Nazionale Tumori Napoli-Pascale, Senology, Napoli, Italy, [2]Istituto Nazionale Tumori Napoli-Pascale, Epidemiology, Napoli, Italy, [3]Istituto Nazionale Tumori Napoli-Pascale, Laboratory Medicine, Napoli, Italy

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.

P12
Smoking during the period of time between menarche and first childbirth and breast cancer morbidity

R.S. Braczkowski[1,2]*, L. Labus[1], B. Braczkowska[3], A. Palasz[4], Z. Rusinowska[5], A. Zmuda[5]. [1]Silesian Medical University, Public Health, Bytom, Poland, [2]Central Universty Hospital, Internal Medicine, Autoimmunity and Metabolic Diseases, Katowice, Poland, [3]Silesian Medical University, Department of Epidemiology, Katowice, Poland, [4]Silesian Medical University, Department of Histology, Katowice, Poland, [5]Voivodship Hospital, Oncology, Bytom, Poland

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 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

S. Chand Sanchetee[1]*. [1]Rajasthan Cancer Cure Hospital Private Limited, Oncology, Jodhpur, India

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