Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.099

93

Ovarian tissue cryopreservation as an option for fertility preservation in young unmarried girls suffering from cancer

V.D.S. Jamwal

Armed Forces Medical College, Pune, India

Introduction: Due to various social and economic reasons women in the reproductive age group delay their marriage and the age of bearing their first child. This leads to an important health problem, as women steadily lose their oocytes from birth to menopause, with an accelerated loss of oocyte quantity and quality from the age of 35 years onwards. The situation becomes grim when a unmarried girl is diagnosed with cancer. Fertility preservation presents a peculiar challenge in young unmarried girls suffering from malignancies. It is now well established that the chemotherapy and/or radiotherapy is gonadotoxic and hence the need for preservation of fertility. The multiple factors affecting the fertility potential include the drug or size/location of the radiation field, dose, method of administration, disease, age and sex of the patient, and combination chemotherapy and pretreatment fertility of the patient. The ovarian cortex contains primordial follicles which are undifferentiated and not active metabolically.

Materials and methods: The primordial follicles in the ovarian cortex can be cryopreserved by offering ovarian cortex freezing as a method of fertility preservation. The ovarian tissue is obtained by performing laparoscopy on the same day. The cryopreserved ovarian cortical tissue is intended to be thawed and implanted after completion of chemotherapy and/or radiotherapy.

Result and conclusion: This method of ovarian tissue cryopreservation can be offered as a method of fertility preservation to children who survive childhood malignancies. In young unmarried girls suffering from cancer where in vitro-fertilization-embryo transfer (IVF-ET) is contraindicated, ovarian tissue cryopreservation and transplantation could become the technique of choice in the future.

Conflicts of interest

The author has none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.100

94

Association of *pai-1* promoter sequence variations in idiopathic avascular necrosis of head of femur

Srishty Raman*, Rima Dada, T.C. Nag, C.S. Yadav

AIIMS, New Delhi, India

Background: Avascular necrosis of femur head (ANFH) is considered a multifactorial disorder mainly associated with intravascular thrombosis or occlusion of already meager femoral head blood supply. Pertinent to its etiology, lot of causative factors have been elucidated in literature but derangement in fibrinolytic mechanism have been focused with more concern. Though various genes and genetic factors play role in maintaining harmony in coagulation and fibrinolytic system, *PAI-1* gene plays a crucial role. Hence aim of our study was to find out any polymorphism in this gene in respect to AVN hip.

Methods: Two SNPs of the *PAI-1* gene (rs2227631, −844G/A; rs 1799889, −675 4G/5G) were genotyped in 12 patients diagnosed with idiopathic AVN of head of femur and 13 control subjects, using direct sequencing. Subsequently, association analysis was performed for the genotyped SNPs.

Results: In −844G/A genotype GG (normal) was found in 10/13 controls and 10/12 cases (AVN). Similarly, GA (polymorphism) was noticed in 3/13 controls and 2/12 cases (AVN). Also in −674 4G/5G genotype: 4G/4G (normal) was found in 3/13 controls, 4G/5G in 4/13 controls, and 4G/4G + A in 6/13 controls while 4G/4G in 4/12 cases, 4G/5G in 2/12 & 4G/4G + A in 6/12 cases of AVN. Hence, cases and controls had equal frequency of polymorphism association of *PAI-1* gene.

Conclusion: Equal frequency of genetic polymorphism of *PAI-1* gene in cases and controls, suggests that sequence variation in promoter region is not associated with AVN. However, larger study group is warranted to validate our findings.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.101

95

Molecular diagnosis of sickle cell anaemia based on SNPs in β-globin gene

Nayak Sunita*, P. Das, J.K. Sundaray, S.K. Panda, P.K. Chinara

IMS & SUM Hospital, Bhubaneswar, India

Introduction: Sickle cell anaemia is an autosomal recessive disorder caused by a point mutation in the 6th codon of the β-globin gene on chromosome 11. The substitution of a single amino acid (glutamic acid → valine) decreases the solubility of the deoxyhaemoglobin molecule making the erythrocytes assume irregular shapes. The sickled erythrocytes become trapped in the microcirculation and cause damage to multiple organs.

Aims and objective: To standardize a DNA based diagnosis of sickle cell anaemia in adolescent tribal girls of selected regions of Odisha so as to create awareness among the tribal communities to avoid consanguineous marriages.

Materials and methods: 40 Blood samples were collected from microscopically diagnosed cases of sickle cell anaemia in adolescent tribal girls who were from western Odisha. The blood samples were collected in 0.1% EDTA treated vials and stored in fridge till DNA isolation. DNA isolation was done from 200 μl of blood from each sample using the conventional phenol–chloroform method. Primers were designed from human β-globin gene using Primer 3 software. Primers were then synthesized commercially. PCR amplification, Sanger sequencing and analysis was done using BIOEDIT sequence editor.

Results: A DNA based detection of sickle cell anaemia could be done, thus showing mutation after the 6th codon where the nucleotide 'A' has mutated to 'T', i.e., adenine is replaced by thymine.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.102

96

Comparative study of implantation rate in cleavage embryo transfer vs blastocyst transfer among couples undergoing in vitro fertilization for treatment of infertility

M.S. Ahuja*, R.K. Sharma, A. Tandon, S. Pandit

ACMS, Delhi, India

Background: In vitro fertilization has conventionally involved transfer of 4–8 cell embryo (also called cleavage embryos) into the uterus. This was considered necessary because culture media and lab systems could not support further growth of embryo. However, new and advanced culture media and laboratory techniques now permit in vitro growth up to blastocyst stage. This has generated a healthy debate regarding optimum stage of transfer of embryos into the uterus post-IVF.

Objectives: To study and compare implantation rates of cleavage embryos with blastocyst embryos and determine which would give better pregnancy outcome.

Materials and methods: One hundred couples reporting for IVF were divided randomly into two groups. Group A comprised fifty couples in whom cleavage embryos were transferred. Group B comprised 50 couples in whom blastocysts were transferred. In both groups couples were in 20–35 year age group. In both groups maximum two embryos were transferred into the uterus.

Results and conclusion: The implantation rates in both groups were similar. The abortion rates were also similar. However, in cases where only one embryo was transferred, the implantation rate with balstocyst embryo was double that of the 4–8 cell stage embryo. Thus blastocyst transfer has the potential benefit of reducing incidence of multiple pregnancies frequently seen in IVF pregnancies.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.103

97

Placenta in IUGR: A morphometric study

K. Mohanlal*, Col A. Malik, Col R. Bhatnagar, D. Baruah

AFMC, Pune, India

Background: Intrauterine growth restriction (IUGR) is a significant public health problem that jeopardizes neonatal health with possible deleterious consequences later in adult life. It may be caused by intrauterine viral infections, eclampsia, and congenital anomalies or idiopathic. This study aims at looking at the anatomical pathology of Idiopathic IUGR placentas using morphometry analytical techniques.

Methods: This case–control study was conducted on placentae from 30 IUGR and 36 normal deliveries conducted in a tertiary care hospital between June 2011 and December 2012. The placentae were compared morphometrically for gross and microscopic features using H&E. Morphometry of placental tissue for various magnifications were done using a computerized digital photomicrograph system (Dewinter Optical Inc. with Digi Eye 330 digital photomicrography camera and Biowizard 4.2 Image analysis software).

Results/observations: Morphometric analysis showed a statistically significant difference in placental weight, mean vascular density; mean vascular calibre, density of villi, deposition of fibrinoid and presence of syncitial knots.

Discussion/conclusion: Placental pathology plays an important role in the development of Idiopathic IUGR though most of these changes are seen in IUGR with known causes also. More quantitative histomorphometric studies with larger sample size have to be undertaken to come to a definite conclusion regarding placental changes as cause of idiopathic IUGR.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.104

98

Dermatoglyphics – The scientific basis to understand personality

Mamata Panigrahi*, S.C. Mohapatra, Minati Patra

Kalinga Institute of Medical Sciences, Bhubaneswar, Odisha, India

Introduction: Dermatoglyphics has absolute scientific basis, with 200 years of research to its credit. Ridges and human brain are developed from 13th week of gestation and therefore many researches in past suggest correlation between finger printing and intelligence-quotient. But data pertaining to personality trait co-relation are limited.

Objective: To derive a co-relation if exist, between dermatoglyphics and personality traits.

Method and methodology:

- Study sample size: 50 medical professionals.
- Sampling: purposive sampling.
- Design: cross-sectional study.
- Place: Kalinga Institute of Medical Sciences, Odisha.
- Age: young adults, i.e. 17–35 years.

All approval cleared from Medical Research Committee and Institutional Ethical Committee.

Results: To be discussed during the presentation.

Conclusion: Helpful to the community as a whole mainly in the areas of career counseling and relationship counseling.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.105