ISP-17-9  Omphalopagus—A Rare Case Report

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[Objectives] To find out the incidents of congenital anomalies in Bangladesh & also to know the relationship between consanguineous marriage & congenital anomalies. [Methods] It is a single case report. [Results] A 20 year old primigravida, hailing from a Muslim lower middle class family was diagnosed as a case of 40 weeks twin pregnancy with breech presentation of both fetuses, referred from a district hospital to a tertiary center. It was a consanguineous marriage with her 1st degree cousin. The patient underwent elective caesarean section & was found to be a case of conjoined twins. During the process of caesarean section the delivery of the twins was done by breech extraction with considerable difficulties. The fetuses were attached below the xiphisternum up to lower abdomen with single umbilicus & single umbilical cord. Both were female fetuses weighing about 6.2 kg together & had good Apgar score. Initially the babies were managed by a neonatologist just after birth & was referred to the dept. of pediatrics, Rajshahi Medical Collage Hospital, Rajshahi, Bangladesh. Because of their dissatisfaction with the conjoined twins the patient's party took them to their home with no treatment. After 2 days, they decided to shift the babies to Dhaka Child Hospital, Dhaka, Bangladesh. The USG of the fetuses revealed that the babies had single heart. During the process of conservative treatment the twins died after 2 days. The post-operative condition of the mother was good, except psychological trauma. [Conclusion] Early diagnosis of the conjoined twins by proper modern imaging as well as the decision to terminate the pregnancy is crucial for parents & obstetricians, for it can reduce the mental burden of both the family & doctors who are concerned.

ISP-17-10  Conditioned medium from human amniotic fluid stem cell ameliorated glutamate−induced apoptosis

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[Objective] Glutamate−induced apoptosis (G−apoptosis) plays a central role in the pathogenesis of perinatal brain injury. In this study, mesenchymal stem cells derived from human amniotic fluid (hAF−MSC) were established and the effect of conditioned medium (CM) from hAF−MSC on G−apoptosis was determined. [Methods] The study was approved by the institutional review board of our university and informed consent was obtained from all patients. hAF samples were obtained by amniocentesis. CD117 cells selected by microbeads were characterized by flow cytometry for surface markers of mesenchymal (CD29, CD73, and CD90) and hematopoietic (CD14, CD34, and HLA−DR) stem cells. CD117 cells were analyzed to confirm their differentiation into osteogenic, adipogenic, and chondrogenic lineages. SH−SY5Y human neuroblastoma cells were treated with excess glutamate in the presence and absence of CM. After 24 hours of treatment, apoptotic cells were quantified using annexin−V immunostaining. [Results] CD117 cells were positive for mesenchymal markers, but negative for hematopoietic markers. The differentiation of CD117 cells into three lineages was confirmed by Alizarin Red S, Oil Red O and Alcian Blue staining. The number of apoptotic cells increased after glutamate treatment; however, CM treatment alleviated this effect. [Conclusion] We established hAF−MSC and CM from hAF−MSC alleviated G−apoptosis.

ISP-17-11  Does the oxytocin during induced labor directly increase the risk of autism?

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[Objective] Some data about the relationship between Oxytocin (OXT)−induced labor and autism have been reported. However, those studies were restricted only in epidemiological analysis, and the molecular mechanism is unclear. In this study, we investigated the relationship between OXT−induced labor and autism using new animal model. [Methods] To establish the animal model for induced labor, OXT was administered to gestational day18.5 mice using osmotic pump. Male offspring were used for autism related behavioral analysis. We then evaluated the number of Oxytocinergic neurons and Oxytocin receptor mRNA expression. We assessed the ischemia by c−Fos expression and cell death. [Results] The duration of labor was shortened and pup viability was not affected in 0.6 and 6 μgOXT/day. While no behavioral and expression differences were observed, cell death was exacerbate in specific brain regions related to some mental disorders. [Conclusion] We found no direct relationship between OXT itself and autism−like behaviors using an animal model, even excessive cell death was observed in the brain regions related to some mental disorders. Our results suggest that OXT−induced labor is not a risk of autism if it is in appropriate dosage. However this study is also edifying us an importance of keeping appropriate dosage and paying attention to the hypercontraction during induced labor.