

Fibroblasts were isolated from normal human tissues and then cultured in nutritive medium that contained growth factors necessary to sustain cell growth and an antibiotic/antifungal mixture to prevent culture contamination. The cells' growth and proliferation were evaluated by culture examination in phase-contrast microscope. In normal circumstances, fibroblasts appeared as spindle elongate cells with clear cytoplasm.

Results: The study showed that by cultivation of isolated skin dermal cells in an adequate nutritive medium in a month can be obtained a confluent layer of fibroblasts that completely cover the culture dish. The final concentration of the cells in the culture was $5,0 \cdot 10^4$ cells/cm². Also study demonstrated that gelatin scaffold is necessary to growth of fibroblasts by ensuring better cells attachment to the flask surface. Keratinocytes are involved in the intricate mechanisms of initiation, maintenance, and completion of wound healing; also they stimulate fibroblasts to synthesize growth factors, which in turn will stimulate keratinocyte proliferation in a double paracrine manner.

Conclusion: Cultured skin cells are a valuable material for the treatment, including burns and chronic wound. Fibroblasts are critical in supporting normal wound healing, involved in key processes such as breaking down the fibrin clot, creating new extra cellular matrix and collagen structures to support the other cells Associated with effective wound healing, as well as contracting the wound. It is necessary to rapidly grow optimal number of cells with desired potency, optimal harvest site identification based on desired therapeutic indication, cultivation, storage and transport of the cells for clinical application.

Keywords: wound treatment, fibroblast, keratinocyte, culture, nutritive medium.

189. PREVENTION OF SCOLIOSIS

Eugenia Mustea

Scientific adviser: Nicolae Capros, MD, PhD, Professor, Department of Orthopaedics and Traumatology, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: Scoliosis is a progressive disease, characterized by one or more lateral curvature of the spine. The incidence of scoliosis to children is 10,2- 27.6 % of orthopedic pathology. Particularly, affects girls (75-80 % of cases in most statistics) and usually occurs at the age of puberty or even several years before it. 2-3% of scoliosis appears at birth due to malformations of the vertebrae or ribs, and 6-7 in a hundred is due to other causes: neuromuscular disease, neurofibromatosis, cerebral palsy home. Scoliosis does not occur because of incorrect position but is caused by genetic or hormonal factors. Therefore, early detection is required when the degree of curvature of scoliosis is low, to prevent the apparition of significant changes in the spine and chest with repercussions on cardiorespiratory function and balance disorders. Purpose: selection of reliable methods for prevention of scoliosis and arguing their advantages and practical role.

Materials and methods: To demonstrate the importance and effectiveness of this method we performed prophylactic examinations of scoliosis during 17.11.2015-20.11.2015, on a group of 68 children-46 girls and 22 boys, aged between 11-15 years from the Cismea Orhei Gymnasium. Using the

screening method we analyzed: the spine in the frontal, lateral, symmetry of scapula, symmetry of shoulder, symmetry of hips, triangles waist. Also, was performed Adam's method: patient leans forward having the basin right and is noticed if one part of back is higher than the other.

Results: Out of 68 children examined, four girls accused back pain, a boy has spinal deformities lumbar lordosis and kyphosis type thoracic emphasized.

Conclusions: Although the disease of scoliosis does not manifest pains, though was recommended to submit children to specialist to confirm or infirm out the presence of scoliosis, and if necessary to receive an appropriate treatment. The presented screening method is non-invasive and does not require sophisticated equipment. They can be carried out by the family doctor or by the doctor from the child's school network to guide the child to a specialist.

Keywords: scoliosis, prevention

190. STERNOCHONDROPLASTY WITH METAL BLADE RETAINERS LOCATED RETROSTERNAL EFFICACY IN PATIENTS WITH PECTUS EXCAVATUM

Maria Ruxandra Oancea, Vasile Bud, Calin Molnar, Constantin Copotoiu

Scientific adviser: Suci Bogdan Andrei MD, PhD, Associate Professor in Anatomy, State Medical and Pharmaceutical University Targu Mures, Romania.

Introduction: Pectus Excavatum (PE) is a deformity of the anterior chest wall, in which the sternum and rib cartilage presents an abnormal development. In these cases, the anterior thoracic wall presents a concave shape depression. Surgical treatment of this condition is a great need for patients, because symptoms are often severe and affect the quality of life of these patients. Objective: Present study aims to objectify early and late postoperative complications after it was performed sternochondroplasty with metal blade retainers located retrosternal.

Material and methods: We conducted a retrospective observational study over a period of 20 years (1.10.1995-1.10.2015). In this regard I used casuistry of Surgical Clinic no. 1 of SCJU Mures. We introduced in the study 68 patients (41 male, 27 female) diagnosed with PE, on whom we practiced sternochondroplasty with metal blade retainers located retrosternal.

Results: Mean age of the patients in the study was 17.4 years, with a range between 8 and 20 years. Most common symptoms on this patients were recorded: palpitations (n=23), exertional dyspnea (n=15), cough (n=15), chest pain (n=22) and dysphagia (n=2). Also 29 patients at clinical examination presented deformations of the spine (12 patients – kyphosis; 17 patients- scoliosis). The degree of deformation was evaluated by measuring the angle formed by the body of the sternum and the manubrium towards the spine. Thereby, we obtained the following results: 42 patients had an angle of 10 to 15 degrees; 20 patients had an angle of 15 to 20 degrees and 11 patients with an angle greater than 20 degrees. Of the total number of operated patients, 11 had immediate postoperative complications, as follows: 3 hematoma patients, 4 patients with bilateral pneumothorax, 3 with unilateral pneumothorax and one patient experienced hemorrhage at cartilage section. Late complications were represented by 2