

ного снабжения.

Introduction: By means of controlled distraction the genesis of soft tissue including small bone vessels is possible as shown by G. A. Ilizarov, who originally described the application of this principle in the treatment of syndactylia.

Material and methods: Two cases of congenital syndactylia in children of 3 and 4 years of age were treated. Previous surgical exploration and ultrasound investigation with colour doppler technique had revealed that the number of arteries necessary for separation of the fingers - at least one artery per finger - were not available. An Ilizarov mini frame mounted with one olive wire per phalanx and crossed wires in the carpal region was used for distraction of the webs over a period of approximately 20 days. In one case two webs were distracted simultaneously.

Results: At separation the fingers were highly vascularized. The need for skin transplantation was not obviated due to reduction in elasticity and thickening of the skin. There were no wound healing problems or pin tract infections.

Conclusion: The method may be recommended for the treatment of cases of syndactylia where separation of the fingers otherwise involves the danger of ischaemia due to insufficient arterial supply.

References:

1. Ilizarov G.A.: The tension-stress effect on genesis and growth of tissues. Part I // Clin. Orthop. — 1989, — No 238, P.249-281.

Кнуд С. Кристенсен, Пребен Ласс, Аршак Е. Мирзоян (Дания)

Knud S. Christensen, Preben Lass, Arshak E. Mirzoyan (Denmark)

Методика Илизарова - выбор лечения в ортопедической хирургии

The Ilizarov technique — a treatment choice in orthopedic surgery

Метод Илизарова использовался для коррекции разницы в длине конечностей и/или угловой деформации у 44-х пациентов; для лечения псевдоартроза и дефектов костной и мягкой ткани - в 38-ми случаях, включая 14 инфицированных. Деформацию стопы лечили у 17-ти пациентов, включая 8 случаев косолапости и 9 деформаций, вызванных полиомиелитом, прогрессирующей невралгической атрофией мышц (Charcot-Marie-Tooth) и др. Артродез голеностопного сустава произвели 7-ми пациентам. В смешанную группу из 8-ми пациентов входили 3 пациента с синдактилией, 2 - с артериальной закупоркой, вызванной атеросклерозом голени, 2 - с контрактурами голеностопного и локтевого суставов, соответственно. Лечение острых переломов (7 закрытых и 11 открытых) осуществляли у 18 пациентов. У 10-ти из них была повреждена и суставная поверхность, причем, в 7-ми случаях - в области коленного сустава, где метод Илизарова использовался в сочетании с артроскопией и минимальной внутренней фиксацией. Если классифицировать по сегментам, у 81 пациента аппарат Илизарова был наложен на большеберцовую кость, у 25 - на стопу, у 19 - на бедро, у 7 - на плечевую кость и у 4 - на запястье и кисть.

Метод Илизарова был единственно возможным методом лечения для многих из этих пациентов. Сочетание метода Илизарова и артроскопии при лечении переломов суставной поверхности имеет некоторые преимущества и перспективы. Осложнения были редким явлением, легко поддавались лечению и у большинства пациентов не влияли на результаты лечения. Следует еще усовершенствовать устранение таких проблем, как инфекция в месте проведения спиц, боль и тугоподвижность сустава. Лечение требует терпения как со стороны врача, так и со стороны пациента, и в некоторых случаях оно причиняет беспокойство. Метод Илизарова - это важная возможность лечения различных ортопедических проблем.

Introduction: Use of the Ilizarov technique, with its new ap-

proach to genesis of bone and soft tissue, has expanded possibilities for reconstructive surgery of the locomotor system. Discovery and application of the "tension stress" effect as a general biological phenomenon has provided the opportunity to treat many diseases, not just in the field of orthopedic surgery. Interest in the Ilizarov technique by orthopedic institutions and specialists increases constantly.

Material and methods: From the beginning in 1991 to 1995, the number of patients have been increased from 4 to 46 a year, in total 125 patients. Currently additional 28 patients with different orthopedic pathologies are under treatment. The Ilizarov technique was applied for correction of limb length discrepancy and/or angulation deformity in 44 patients; and for treatment of pseudarthrosis and bone and soft tissue defects in 38 cases, including 14 infected. Foot deformity was treated in 17 patients, including 8 club feet and 9 deformities due to polio, Charcot Marie Tooth etc. Ankle arthrodesis was performed on 7 patients. A miscellaneous group of 8 patients included 3 with syndactylia, 2 with arterial occlusion due to arteriosclerosis of the leg, 2 with joint contractures of the ankle and elbow respectively.

Treatment of acute (7 closed and 11 open) fracture was done in 18 patients. Ten of these involved joint surface, in 7 cases in the knee, where Ilizarov technique was performed in conjunction with arthroscopy and minimal internal fixation. Divided by segments, in 81 patients Ilizarov frame was applied on the tibia, in 25 on the foot, in 19 on the femur, in 7 on the humerus and in 4 on the wrist and hand.

Results: Lengthening (up to 9 cm) and correction of axis was completely achieved in 38 patients and partially in 6. Healing of non unions and elimination of defects (up to 12cm) was done in all but two patients of which one had a femoral amputation. The correction of foot deformities with a good functional outcome was reached in 14 patients. Ankle arthrodesis healed in all but one patient. Treatment of syndactylia was successful in all cases. Treatment of arteriosclerosis was successful in the first patient and failed in the second who had a lower leg amputation. In treatment of joint contracture the range of motion was improved in both patients. Healing of acute fractures was successful with a good anatomical and functional result in all cases. Summarizing our results of treatment 80% were good, 16% were fair, 4% were bad.

Discussion and conclusion: The Ilizarov technique was the only possible treatment method available for many of these patients. Combination of Ilizarov technique and arthroscopy in treatment of joint surface fractures seems to have some advantages and perspectives. Complications were rare, manageable, and in a majority of our patients did not affect the results of treatment. Management of problems like pin tract infection, pain and joint rigidity still has to be improved. Treatment requires patience on the part of both doctor and patient, and in some cases cause discomfort. The Ilizarov technique is an important treatment modality for different orthopedic problems.

Пребен Ласс, Кнуд С. Кристенсен, Сорен Харвинг и Могенс Б. Лаурсен (Дания)

Preben Lass, Knud S. Christensen, Søren Harving and Mogens B. Laursen (Denmark)

Устранение дефектов большеберцовой кости с помощью внутреннего костного перемещения по методу Илизарова

Tibial Bone Defects treated with Internal Bone Transport by Ilizarov Technique

15 пациентов, 10 мужчин и 5 женщин, средний возраст которых составлял 32 (10-54) года, с дефектами большеберцовой кости лечили с помощью внутреннего перемещения кости в период с 1991 по 1995 гг. 6 дефектов были инфицированными. Лечение заключалось в радикальном иссечении патологического участка кости и мягкой ткани, одновременно брали пробы ткани на микробиологический анализ. В