Summary

External fixation refers to a technique for the immobilization of osseous fragments by their impalement with metallic transfixing pins that are stabilized in a rigid external frame of metallic or other elements.

External fixation has become a popular alternative method for unstable intra-articular fractures as external fixators have a number of unique capabilities that distinguish them from other methods of bony fixation.

Over the years, external fixation has fascinated many surgeons with its apparent simplicity and untapped promise for solving puzzling problems and in recent years, external fixation has been used in treating of many complex deformities in growing children as club foot and congenital tibia vara, and also have been used with a great success in treating some articular problems in adults as joint contractures, joint stiffeness, osteoarthritis and arthrodesis of different joints as they can provide compression, distraction, angular correction, exercise stability, and full weight bearing.

In the past, external fixation was accompanied with a high rate of complications, but with increase interest with external fixators, a great effort has been made to overcome these complications and to develop deferent designs of external fixators that have a new advanced capabilities.

Improved component designs, new techniques of pin care, the discovery of basic concepts that govern the safe and effective application of pin and ring fixators, and the recognition that preoperative and long-term planning are crucial to the success of the method have made external fixation the most adaptable, versatile, and gentle method for stabilizing complex injuries and deformities of joints.