HEMOFILTRATION MODIFIED AND CONVENTIONAL, BASIC PRINCIPLES, AND PRACTICE
Dr. Maha Nassar

The concept of removing excess fluid from the intravascular space of patients in renal failure by the filtration of blood through an ultraporous membrane dates back to 1928. The clinical application of ultrafiltration technology did not occur until the 1950 and 1960, when filtering devices were developed for the effective removal edema fluid in over hydrated patients with renal impairment. First the use of ultrafiltration was confined to patient with renal failure; later the hemofiltes were used in patients going to open heart surgery with normal kidney function. Ultrafiltration is conventional or modified, the first used during CPB and the second used after separation from CPB. There are lists of indication for both techniques in open heart surgery, beside a long list of advantages starting with removal of excess body water ending with considering the technique as a tool for remodeling a failing heart, and a tool to increase lung compliance and to decrease pulmonary vascular resistance. There are no contraindications for the usage of ultrafiltration especially after the polysulfone membrane devices which have a very minimal immunological reactivity.