

INTRODUCTION

The dramatic advancements in arterial reconstructive surgery in the twentieth century are inextricably intertwined with the search for and development of better arterial substitutes. Many of the basic observations upon which modern vascular surgery is based were published by Alexis Carrel in 1908, often in collaboration with Charles C. Guthrie, in the first two decades of this century.

Many experimental and clinical trials of various arterial replacements have been conducted following the monumental work of Carrel and Guthrie, which firmly established the feasibility of arterial substitution. Numerous categories of arterial substitutes have been evaluated, including arterial autografts, allografts, xenografts, venous autografts and allografts, textile grafts. Considerable evidence at present suggests that large arteries are best replaced by textile grafts, and small arteries by venous autografts of

appropriate size (Krippaehne, 1981) .

The recent development of various prosthetic grafts, has contributed greatly to the field of arterial reconstructive surgery (Tanbe, et al., in 1980) .There is an obvious need for arterial replacement in circumstances where other methods of reconstruction, as endarterectomy, emolectomy or sympathectomy, are in appropriate or not applicable.

The ideal arterial substitute has not yet been found. Normal arteries have often been described as the ideal vascular conduit, and autogenous artery grafts as the ideal arterial substitute.(Krippaehen, 1981).

Arterial reconstructive surgery has a variety of complications which are grouped into early and late complications.

The early complications which occur before the completion of clinical healing and also occuring in the intraoperative or immediate postoperative period .The late complications results from events that occur become manifes after clinical healing has run its course(Szilagyi,1979).