

# FAILING DIALYSIS FISTULA -NEW TREATMENT





**Digital Version** 



## MAGNITUDE OF THE PROBLEM

• Chronic kidney disease (CKD) is an important public health problem all over the world. With an increased prevalence of diabetes and hypertension, the prevalence rates of CKD have increased in the last few years worldwide to about 13% -15%.

#### WHAT ARE THE TREATMENT OPTIONS?

- Hemodialysis
- Peritoneal dialysis
- Renal Transplant
- Non dialysis supportive care

## **HEMODIALYSIS**

• It involves vascular access. Blood cleansed by artificial filter. Vascular access is the key for hemodialysis fistula. They include:

- Arteriovenous fistula (AVF),
- Arteriovenous graft (AVG), and
- Central venous catheters (CVC).

AV Fistula is the preferred vascular access because of:

#### • Better access patency

- Low cost of access maintenance
- Low rates of access infections
- Low patient mortality

• Primary patency rates of AVF at 6 months, 1, 2, 3 and 4 years for all patients are around 79.5%, 70%, 65%, 60.5% and 48% respectively.

## PREDICTORS OF AV FAILURE

- Female gender
- Diabetes Mellitus
- Lower arm fistula
- Smaller artery size

## APPROACHES FOR TREATMENT FOR AVF FAILURE

- New AV Fistula
- AV graft
- Balloon fistuloplasty

## WHAT IS A FISTULOGRAM?

• This is an examination of the blood vessels that make up your fistula. A small needle is placed in your fistula and dye (contrast agent) is injected. • This dye provides an image (like a map) of the blood vessels (these would otherwise be invisible on X-ray) and allows us to localize any problems with the fistula. In most cases we perform a fistulogram immediately before performing a fistuloplasty.

### WHAT IS A BALLOON FISTULOPLASTY?

• The blood vessels that make up a fistula can develop narrowing which can make dialysis less effective or can cause bleeding, arm swelling or other problems.

• To treat this, a small balloon can be inserted and inflated to stretch up the narrowed area. The balloon is then deflated and removed.

#### WHAT ARE THE RISKS?

• Fistulogram and fistuloplasty are common procedures and are carried out routinely and are very safe.

- Very occasionally bruising can occur at the site of needle puncture. Less commonly (1 in 100 patients), ongoing bleeding requires an inpatient stay or additional procedures or even surgery to manage it.
- There is a small risk of failure of treatment or of damage to the fistula. In very rare circumstances emergency surgery may be required or the fistula may cease to function, in which case alternative dialysis access (usually a dialysis line) is required while a new fistula is made.
- Narrowing in fistulae tend to recurrence and you may need repeated procedures over your lifetime.
- Infection is very rare.

• When considering these risks, it is important to bear in mind that leaving a narrowing in a fistula or vein untreated would ultimately result in failure of the fistula.

## WHAT ARE THE ALTERNATIVES?

• The alternatives are New AV Fistula AV graft. This is a much more invasive procedure and in most circumstances is not necessary. The balloon treatment is usually effective.

• There are no medications that can be used instead. We would not advise doing nothing as narrowing have a tendency to progress and will result eventually in complete occlusion of the fistula.









PLEASE SCAN FOR THE LOCATION



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