

Introduction

A dialysis fistula is a life-line for patients with uremia. Choosing an appropriate fistula and maintaining it well can prolong patients' lives and improve the quality of their lives.

Classification of arteriovenous hemodialysis access

Types of dialysis access commonly used are:

1. Native arteriovenous fistula (A-V Fistula) by surgical connection.
2. Arteriovenous Graft (A-V Graft) with artificial shunt.
3. Temporal dialysis catheter.

前言

洗腎廬管可說是尿毒症病患的生命線，選擇合適及保養良好的洗腎廬管，可以延長病患的壽命，並且增加生活品質。

血液透析動靜脈廬管的分類

目前常用的洗腎廬管分為：

1. 自體動靜脈廬管。
2. 人工血管。
3. 頸靜脈插管。

Advantages and disadvantages of A-V Fistula and A-V Graft

1. A-V Fistula

- Advantage: not easily Occluded; better long term usage.
- Disadvantage: requires at least 6 weeks for the maturation of the fistula and strenuous hand grip exercises are needed in the interim.

2. A-V Graft

- Advantage: Fistula maturation is faster and takes about 4 weeks.
- Disadvantage: Fistula stenosis develops easily, resulting in reduced blood flow. Prone to infection.

自體瘻管和人工瘻管的優缺點

1. 自體洗腎瘻管

■ 優點：

較不易阻塞，使用壽命較長。

■ 缺點：

需要至少 6 星期讓瘻管成熟，期間需要大量做握球運動，等待時間較長。

2. 人工瘻管

■ 優點：

約四星期成熟，等待時間較自體瘻管短。

■ 缺點：

容易發生狹窄，血流不順，一年內阻塞率 2 - 4 成，且較容易感染。

Self-maintenance of hemodialysis access

No matter whether patients choose an A-V fistula or an A-V graft, they need to do hand grip exercises to increase blood vessel elasticity and blood flow.

1. Hand grip exercise:

- Stretch the arm having surgery and grip a ball for 5 seconds, then relax and repeat the exercise (Figure 1-1-1-2). Exercising 500 times/day is recommended, but don't make yourself tired.
- Please don't do the hand grip exercise for 4-6 hours after dialysis to avoid puncture hole bleeding.

血液透析瘻管的自我保養方式

不論自體或人工動靜脈瘻管的患者皆需做握球運動，增加血管的彈性及血流量。

1. 握球運動法：

- 將開刀的手臂伸直，手掌用力握球5秒，放鬆後再重覆做（圖1-1~1-2），每天儘量做約500次以不疲倦為原則。
- 注意透析後4－6小時內不需要做握球運動。



Figure 1-1 / 圖 1-1



Figure 1-2 / 圖 1-2

2. Pressing on or performing treatment on the arm with the fistula should be avoided. Examples include using the hand as a pillow, wearing a watch or bracelet, wearing tight cuffs, holding a child, carrying a load, measuring blood pressure, having an injection or drawing blood (Figure 2-1~ 2-4).



Figure 2-1
Don't use your hand as a pillow



Figure 2-2
Don't wear a watch, bracelet, or tight cuffs.

2. **禁止**在有慶管的手臂施加壓力或做治療，如用手當枕頭睡、戴手錶、手鍊、緊身衣（袖口）、抱小孩、提重物、量血壓、打針、抽血（如圖2-1~2-4）。



圖 2-1
勿用手當枕頭睡



圖 2-2
勿戴手錶、手鍊、緊身衣(袖口)



Figure 2-3
Don' t carry heavy objects.



Figure 2-4
Don' t measure blood pressure.



Figure 2-5
Don' t have an injection or blood drawing.



圖 2-3
勿提重物



圖 2-4
勿量血壓



圖 2-5
勿打針、抽血

3. Intermittent hot Packing are used to improve blood circulation. These are done with water temperature & frequency less than 40°C 3-4 times/day, for 20-30 minutes/ time.

4. Avoid smoking and drinking, which might affect blood vessel function.

5. Perform this self-test every day

- When patients who use an A-V fistula touch the fistula by fingers, they should get an obvious vibration feeling.



- Patients who use an A-V graft should use a stethoscope to check if there is a wheezing sound of the flowing blood.

3. 間歇性熱敷促進血液循環，以不超過40度水溫較安全，每日3-4次，每次20-30分鐘。

4. 避免抽煙、喝酒，影響血管功能。

5. 每日確實執行瘻管自我檢查

- 使用自體動靜瘻管者，請用手指輕壓瘻管可感覺到明顯的觸電感。



- 使用人工血管者，請利用聽診器聽有無咻咻的血流聲。

6. A large A-V fistula should have a loose protective cover to prevent accidental injuries.



6. 動靜脈瘻管直徑變大時，可戴寬鬆護套保護瘻管並防外傷。



Things to remember on the day of dialysis

- 1.If you need to take cardiovascular medications, please ask your physician about the method of administration to prevent hypotension.
- 2.Please use warm water to wash the needle puncture site and keep it clean and dry.
- 3.Keep the needle puncture site dry on this day.
- 4.After hemodialysis, please try not to use a tourniquet. If a tourniquet is necessary, please don't use it for more than 15 minutes.
- 5.Remove gauze 24 hours after dialysis and be careful about oozing blood.

洗腎當天注意事項

1. 如需服用心血管藥物，請先向醫師詢問服用的方法，以免低血壓的發生。
2. 請先用溫水清洗穿刺部位，保持清潔乾燥。
3. 當天穿刺傷口勿弄濕，保持乾燥。
4. 血液透析結束後，盡可能不使用止血帶，如必須使用以不超過15分鐘為原則。
5. 加壓包紮紗布透析後24小時再去除，並注意有無滲血情形。

Complications commonly occurred

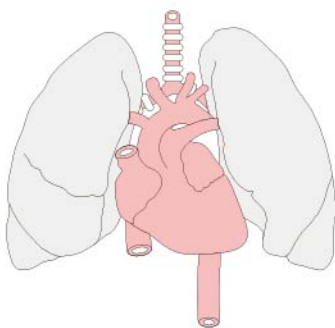
1. Thrombosis .
2. Infection.
3. Peripheral ischemic disorders.



4. Pseudoaneurysma .



5. Cardiovascular complications.



常見的併發症

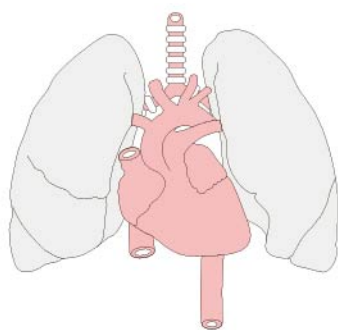
1. 血栓阻塞。
2. 感染。
3. 末梢缺血性病變。



4. 偽動脈瘤。



5. 心臟血管併發症。



In what situations will patients need to see a doctor?

1. When you hear no obvious sound of blood flow or get no vibration feeling from the dialysis access at home or before dialysis.
2. Redness, swelling, local heat and pain occurred at the needle puncture site.
3. Apparent swelling in the arm with dialysis access or the dialysis access obviously collapsed.
4. When you find that there is high venous pressure or insufficient blood flow, or a clot forms easily during dialysis.

什麼狀況才需要求診

1. 當您在家中或洗腎前，發現瘻管無明顯的咻咻血流聲或觸電感的震顫。
2. 穿刺部位有紅腫熱痛的現象。
3. 瘻管側的肢體有明顯腫脹，或瘻管明顯塌陷無法鼓脹時。
4. 血液透析過程出現瘻管注射不易、靜脈壓高、血流不足、易有血塊的情況。

What happens when something is wrong with the dialysis access?

When your dialysis access has a problem, the priority of methods commonly used are:

1. Percutaneous transluminal Angioplasty (PTA) .
2. Thrombectomy or shunt reconstruction.

慶管發生問題時怎麼辦

當您的動靜脈慶管出現問題時，處理方式的優先順序為：

1. 經皮氣球擴張術(PTA)。
2. 血栓清除術或血管重建手術等方式，這樣的處理方式可延長慶管壽命，減少頸部透析導管置放及保留更多的肢體部位供日後，如需重新建立透析慶管之使用。

Memorandum



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敬祝您

身體健康 平安吉祥

Wish you

Healthy & Peaceful

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血液透析病人 動靜脈瘻管的 自我照顧

Self-management of Arteriovenous Hemodialysis access