



* الزراعة لا تقتصر على الأعضاء، بل أيضاً يتم زرعها، كالنسيجَة أو جِريّتها.

Organ transplantation

- An organ transplant is a surgical operation in which a failure or damaged organ in human body is removed and replaced with a functioning one. The donated organ may be from a deceased donor, a living donor or an animal.
- Organs that can be transplanted are the heart, kidneys, liver, lungs, pancreas, intestine and thymus.
- Tissues include bones, tendons, cornea, skin, heart valves, nerves and veins.
- Worldwide, the kidneys are the most commonly transplanted organs, followed by the liver and then the heart.

Legal rules have been followed before

blood transfusion

→ severe hemorrhage
→ severe anemia

The first discussion of this issue was on starting blood transfusion early in the twentieth century. when a person loses blood due to an injury, a blood disease or during surgical interference.

The need for the blood transfusion: **Conditions**

- لا بد من توفر القواعد القانونية
- ⊖ No alternative method of treatment (Such as Saline or glucose) لا بد من توفر بديل
 - ⊖ No harm or damage to the donor → لا بد من عدم ضرر الدم من نقله
 - ⊖ Consent of the donor موافقة المتبرع
 - ⊖ Under medical supervision → المراقبة تحت إشراف المختصين
 - ⊖ The donor should be clinically free from a transmissible disease
- ↔

- Organ transplantation has been widely known in the mass media as offering new hope for thousands of ill patients.
- The major clinical problems include
 - 1 - tissue rejection
 - 2 - organ preservation
 - 3 - insufficient facilities and manpower
 - 4 - and the high cost of each operation
 - 5 - The law has an additional restriction
 - 6 - Community

1 * - كبحه المتأكر من وجود قوافل بين المستوع والمريض
 2 * حضا الامر عمية صوية... وزراعة بتقبل عدد من المتخصصين

من كل اناس بتقبل فكرة الزراعة

Types of organ transplantation :

- Classification of organ transplantation:-

- 1) Auto-transplantation:- (to him or back to him)

- It involves the transplantation of tissue from one individual back to the same individual (e.g., skin, teeth, hair...etc).
- [in burns] ~~the patient's consent is enough~~

- 1) Isograft:- Graft=Transplant (Between genetically identical individuals)

- Donor and recipient are genetically individuals of the same species, such as graft between monozygotic twins.

- 1) Allo-transplants:- (genetically ~~different~~ ^{different} ones) → Dead persons

- Transplants from one individual into another genetically different one, it including cornea, teeth, bone...etc.

- 1) Xenograft:- (between different species)

- Where grafts between different species have been performed in the part for skin & heart valves.



Transplantation from a living person to another living one

- - There should be no harm or danger on the donor's life.
- -The operation should be done in a recognized hospital. (مستشفيات خاصة)
- -The donor should be related to the recipient up to the third degree, so as to prevent selling organs

لا بد من بيع الأعضاء

إذا بقي أُنقل عضو أو نسيج من شخص لا يجوز ما لم يكن في ضرر على أي جهة

B.S → Brain stem

4 No oculovestibular reflex.

5 No oculoccephalic reflex

6 No gag reflex

7 Apnea test

8 movement of chest in response to the catheter

intact B.S

intact B.S

→ the deviation of eye is toward the irrigated ear

→ sudden movement of head to one side

So the eyes must move toward the opposite

direction intact B.S

→ touching the oropharynx by tongue depressor

- So stimulate or irritate vomiting

or - observe the movement of soft palate

intact B.S

→ to detect if the patient can breathe or not, by removing the ventilator... so CO₂ is accumulated, which should stimulate respiratory center [movement of chest]

intact B.S



21 O₂ 21 SpO₂ B.S tests 21 O₂ 21 SpO₂ *

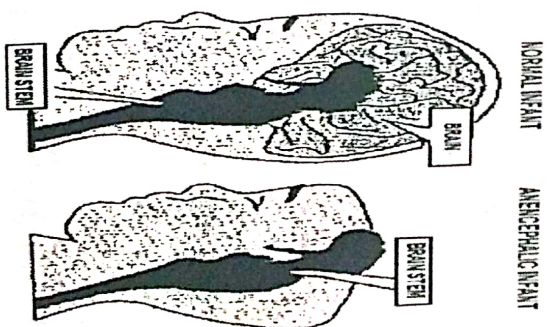
Approaches to organ donation from an encephalic infant:

- (1) Maximal life support systems at birth and the organ are removed as soon as possible.

الاعضاء تكون جيب عيني 11%
 لكن انما يتغير الى سكر الى سيرة ولو في حالة في اكلها

شاهد في
 عيود
 اكل
 عيني
 11%
 عيود
 في حالة
 damage الى

- (2) As 1st approach but the organs are removed only after brain stem functions are stopped.
 if the brain stem is damaged → organ transplantation
- (3) Minimal care until he deteriorates, then placed on maximal life support systems, and organs are removed brain stem functions are stopped.
- (4) Minimal care until the infant dies, and then the organ are harvested.



The success rate was 100% for the 1st approach but 0% - 11% for the other 3 approaches

