purification of fungal culture :

A simplified method of purification of fungal isolates in a single petri dish and obtaining pure isolation for one species of fungi, As well as the study of the history of life of these fungi and methods of parasitism and nutrition. Look figure (1)

A- Show Petri dish before purification .
B- Show Petri dish after purification .



B



figure (1)

Types of fungal purification

a- Single spore culture:

Obtain pure culture growing from single spore , as follows:

- ❖ Preparation fungal suspension.
- ❖ Dipping a needle vaccination(Swab) in fungal suspense and then being a simple streak on the surface of solid plate.
- ❖ Streak 3-4 solid plates in the same Swab.
- ❖ Incubating dishes 25-28 ° C For 5 days.
- ❖ Re-cultivation spores in new solid plate .
- ❖ Saved on the slant culture media.

b- Hyphal tip culture :

This method used in the case of fungi that do not produce spores easily .

- ❖ Using Capillary glass tube to separate a small part of the hyphal tip.
- ❖ Transfer hyphal tip to the solid plate.
- ❖ Incubating dishes 25-28 ° C For 5 days.

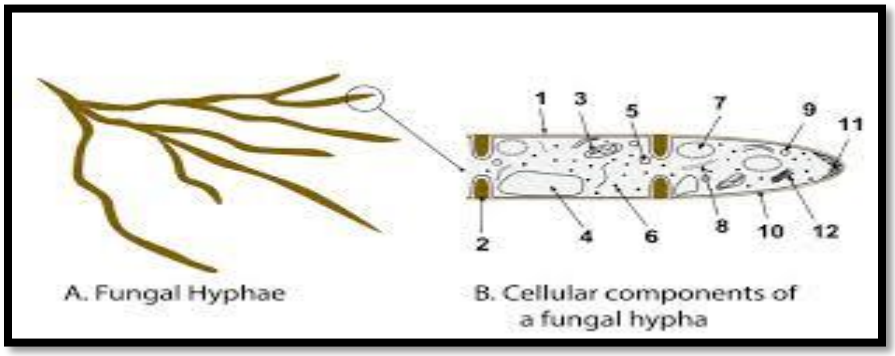

figure (2)

Diagnosis of fungal :

Definition of fungi isolated through morphological characteristics and microscopic characteristics of the farm fungal .

- ❖ **Morphological characteristics :** Examination fungal growth on the culture media morphologically and registration morphological characteristics such as the quality of the growth on

culture ، color culture ، growth density، tip shape and watching the color change of fungal growth.

- **Microscopic characteristics:** Prepare slides of fungal growth ، staining the slides and examine under Microscopic to see the hyphal shape ، spores shape ، conidial shape .

Special Dyes in slides fungi :

- **LactoPhenol Cotton Blue (LPCB):** This type of Dyes used to staining most types of fungi ، consist of
  1- **Phenol :**which it kill any microorganism.
  2- **Lactic acid :** protect the fungal structure **.**
  3- **Cotton blue :** staining the chitin in the fungal cell wall.
  4- **Distell water**
  5- **Glycerol**
- **Potassium hydroxide preparation :**used to prepare the fungi that infected the hairs and nails (Dermatophytosis) ، consist of :
  1- **Potassium hydroxide:** melting the keratin found in samples (hairs ،nails) .
  2- **Distell water**
  3- **Glycerol**