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Research Article

The Alternative Fungal Mounting Agent Used As The Pulp Powder Of Pomegranate In Microscopic Fungal Mounting Preparation

Akash A. Phudbangi*

Department Of Microbiology, Yashvantrao Chavan Institute Of Science, Satara 415001 [MH] India.

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ABSTRACT

It is highly challenging to identify any unknown bacterium through microscopic examination, which is the initial step. Since there are no colour contrasts between the cells and the background when the cells are seen under a microscope because they are so small and semitransparent, the staining technique is crucial to bacteriological research since it allows researchers to see the smallest details. The LPCB is the mounting medium used for the traditional approach to fungal staining, and in the blue phenomenon, the other staining also has the property to stain fungal hyphae as a coloring agent used for general procedure, the dye, stain, or mounting medium. The following study discusses the use of pomegranate powder pulp as a natural coloring ingredient in glycerol composition to tint fungi with quality activity.

INTRODUCTION

The quantification of disease brought on by various microorganisms and comparable criteria, such as viruses, fungi, algae, protozoa, etc. operational criteria for the phenomena to identify the microorganism specimens that microorganisms and the different staining processes are employed for But in the past, there was no way to tell if an infection was severe or a disease-causing agent, whether it was bacterial, viral, or fungal in origin, and treatments were limited to treating the symptoms. However, they missed the infection-causing substance. After some time in the 20th century, distinct fields of

microbiology were established, knowledge of microbiology and the micro biome varied, and staining techniques varied too. It is utilised in a similar way to identify the infectious source a different staining technique was used during the bacterial seining and its components. Microbiology field Lactophenol cotton blue is commonly stained in today's events. The majority of laboratories use buffered methylene blue, saline, and iodine as wet mounts. Microscopic identification of fungus frequently involves the use of lactophenol cotton blue staining or mounting medium. (1) In order to recognise the structural

*Corresponding Author: Akash A. Phudbangi

Address: Department Of Microbiology, Yashvantrao Chavan Institute Of Science, Satara 415001 [MH] India.

Email ✉: akashphudbangi@gmail.com

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arrangement, fungi are also dyed. Some grow in decomposed food or organic materials, while others cause illness in humans. Plants and animals, but just one type of dye, lactophenol cotton blue, was employed to colour the microbiological fungal specimen blue in order to mount the fungus material in the blue-colored complex against the colourless backdrop condition. Tinea capitis is a typical dermatophyte illness of the scalp that can also affect the eyebrows and eyelashes, which are also stained with lactophenol cotton blue. (2) This type of black blue complex dye is used to stain the sporangiophore and vesicle. The method quickly and clearly distinguished the interior the quantification of disease brought on by various microorganisms and comparable criteria, such as viruses, fungi, algae, protozoa, etc. operational criteria for helminthes structures, and it has the advantages of speed and simplicity over other staining techniques. (3) Due to cost ineffectiveness, the medium's composition cannot remain in its pure form for more than a few days. Lactic acid costs 1500 INR per 500 ml. The price of glycerol is also around 500 ml for 2000 INR, and the price of phenol is also 500 ml up to that

amount. The main ingredient, methylene blue, or aniline blue, is extremely expensive and costs 1500 INR for only 100 gm, but the pink colour is made from pomegranates, which lowers the price of the stain. And particularly powerful against the spread of fungi. Yeast stain and lacto phenol cotton blue stain were employed to detect yeast cells and hyphae, respectively. (4) Exposure to phenol, one of the ingredients in LPCB, may be dangerous to laboratory workers and the environment, according to material safety data sheets. Additionally, due to its mutagenic characteristics, aquatic life is poisoned by it. (5) When pomegranate seeds with pink-coloured juice of seeds are used as reagents with a composition similar to lactophenol cotton blue, the pink-coloured compels of fungal stain such types of mounting agents.

MATERIAL AND METHODOLOGY.

Fresh pomegranate pulp powder is purchased from the market, weighed accurately according to a chart using powdered water, and then used to prepare the reagent by adding a component from the microbiology overview. Microorganisms and different stains

Composition of lacto phenol cotton blue.

Reagent	Quantity
Lactic acid	25 g
Phenol	25 g
Glycerol	50 g
Methylene blue or aniline blue	0.05
Distilled water	100ml

Composition of lacto phenol cotton pink

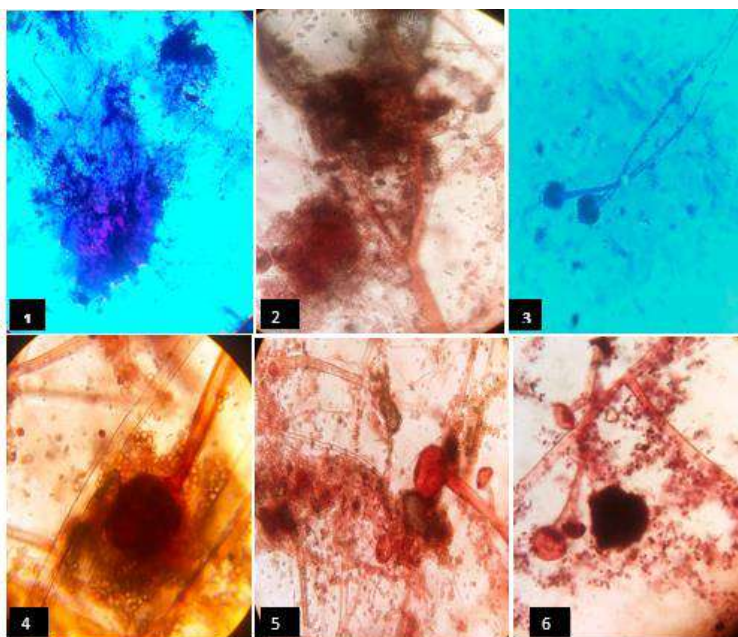
Reagent	Quantity
phenol	10 ml
Lactic acid/ CMC	10ml
Glycerol	25 ML
Pulp powder of pomegranate	5 gm
Distilled water	50ml

Under 45x magnification, a slide is activated, a dye is made, and a fungal culture is made using a cover slip. The results are determined, and image staining is provided as a discussion outcome.

RESULT:

The pink-colored fungal staining on the slide is free of the mounting dye, which contrasts with the background's neutral tint.





Demonstrating Semi-Permanent Mount Preparation of Fungal Isolates with Lacto phenol cotton Blue (1) Mucor Sporangiochore (2) Aspergillus sp. Hyphae (3) Penicillium Hyphae With Newly Modified (4) Conidiophores Of Aspergillus Sp. (5) fungal Stains With New Stain Turn Reddish Pink in Color. (6)

DISCUSSION:

In this study, we examined the application of lacto phenol cotton blue stain to mount prepared faeces to show intestinal parasites by standard microscopy. (6) To stain fungus at the ideal degree of laboratory technique for the right presumption, lacto phenol cotton blue is utilised. And this method is used at the same level as However, because the reagent's colour is twisted and high, pink pomegranate pulp is employed as a substitute source of blue colour, producing the identical observation report. The item is also available with a reasonable proscription. So it is used as the adhesive for that dye. Study. In comparison to saline, iodine, and LPCB we mount predation of faeces, potassium hydroxide was shown to be successful in lying the fecal debris, fecal mass, other artefacts without damaging the majority of the parasitic ova, cysts and larvae in stool smears. (iodine glycerol as an alternate to lacto phenol

cotton blue in the therapeutic setting, promoting the popular substitute for lacto phenol cotton blue, the successful result. (7)

CONCLUSION:

Involves staining the red to pink colour of the majority of the fungi species, which makes it simple to view specific microscopic conditions. Similar to the negative effects of lpcb, this is simple to produce and apply. It is also used in clinical laboratories to identify and diagnose fungal strains that cause infections, and by applying this stain, we can get a general understanding of the structure of the cell wall and its spore. It aids in the classification and identification of microorganisms. Infections like candida caused by some strains are extremely dangerous. And aspergillus flavus, which causes mouth thrush and skin issues in servers. The method utilised to perform the fungus staining operation by this phenomenon organism

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