Faculty Of Pharmacy, Nursing and Health Professions
Nutrition and Diet
General Microbiology laboratory

Report #1: Environmental plate for growth of bacteria

Section: 2

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Group participants name and ID numbers:

Objective

To discover and know the microorganism around us.

Introduction

On general purpose growth media, bacteria can show distinct growth patterns. On agar plates, bacteria grow in groups of cells called colonies. Each colony originates from one or a few bacteria. Although individual cells are too small to display, clumps of cells can be observed. Colonies can have different shapes, margins, heights, and colors. Observing the characteristics of colonies is part of the information microbiologists can use to identify unknown bacteria. Colonies that can be seen with the naked eye contain tens of thousands or even millions of individual bacteria. Bacteria are found in almost all places around us, in the laboratory or at home, on our hand, for example. [1]

Materials

- ✓ Microbial flora
- ✓ Nutrient agar plate
- ✓ Cotton swabs

Methods (procedure)

The experiment contained three main sections. First section: The plaques were divided into three sections and the microbial flora was taken from the nails, teeth and eyes. Section tow: 6 plates were placed in the laboratory room air. Each of them had a specific time that was closed, such as: (0, 5, 10, 15, 20, 30 minutes). The Platts in 0 minutes is not opened to be the main reference. The third section. The third section: Bacterial plants were taken from the objects (hood and bench). Results were recorded a week after implantation.

Results

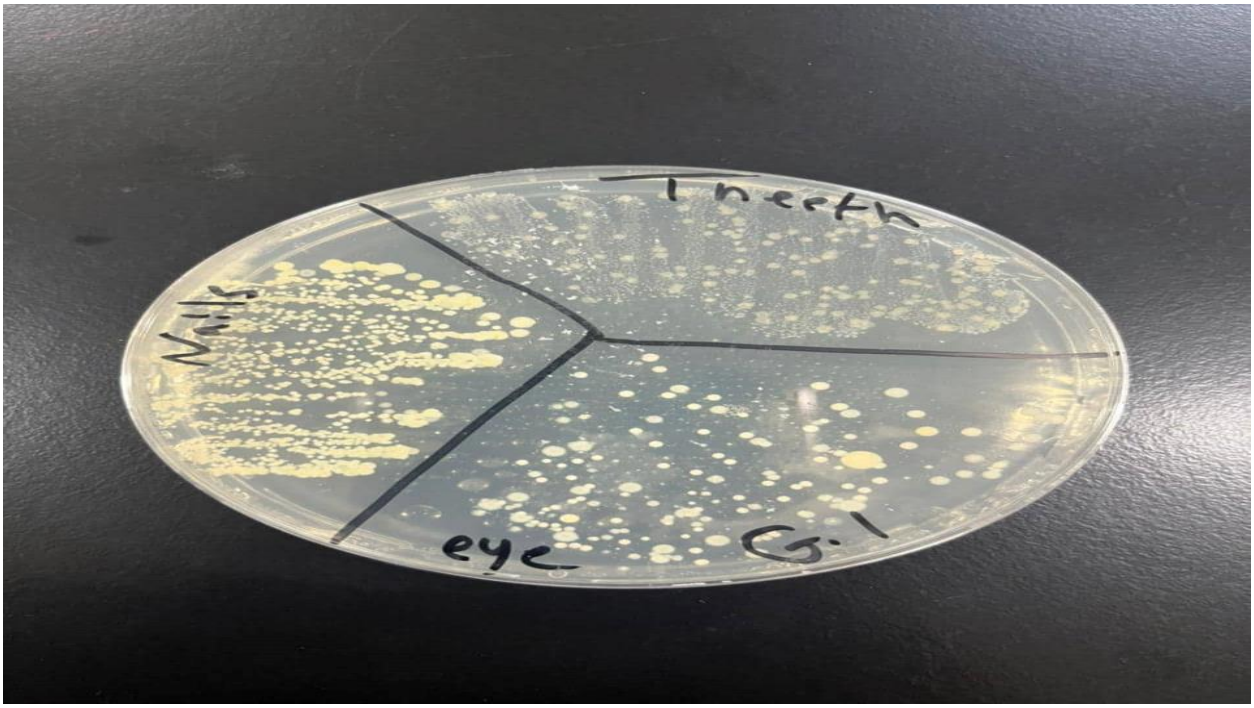

Figure1: the microbial flora was taken from the nails, teeth and eyes.

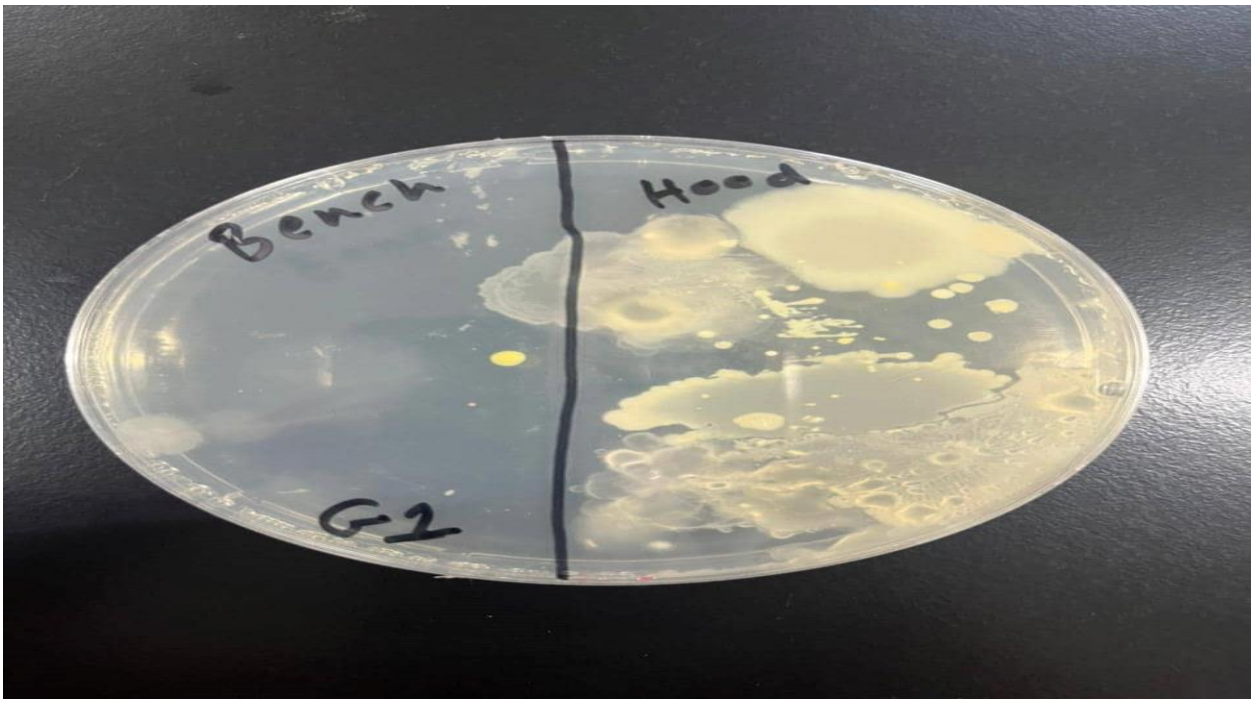

Figure 2: Bacterial plants taken from the objects (hood and bench).

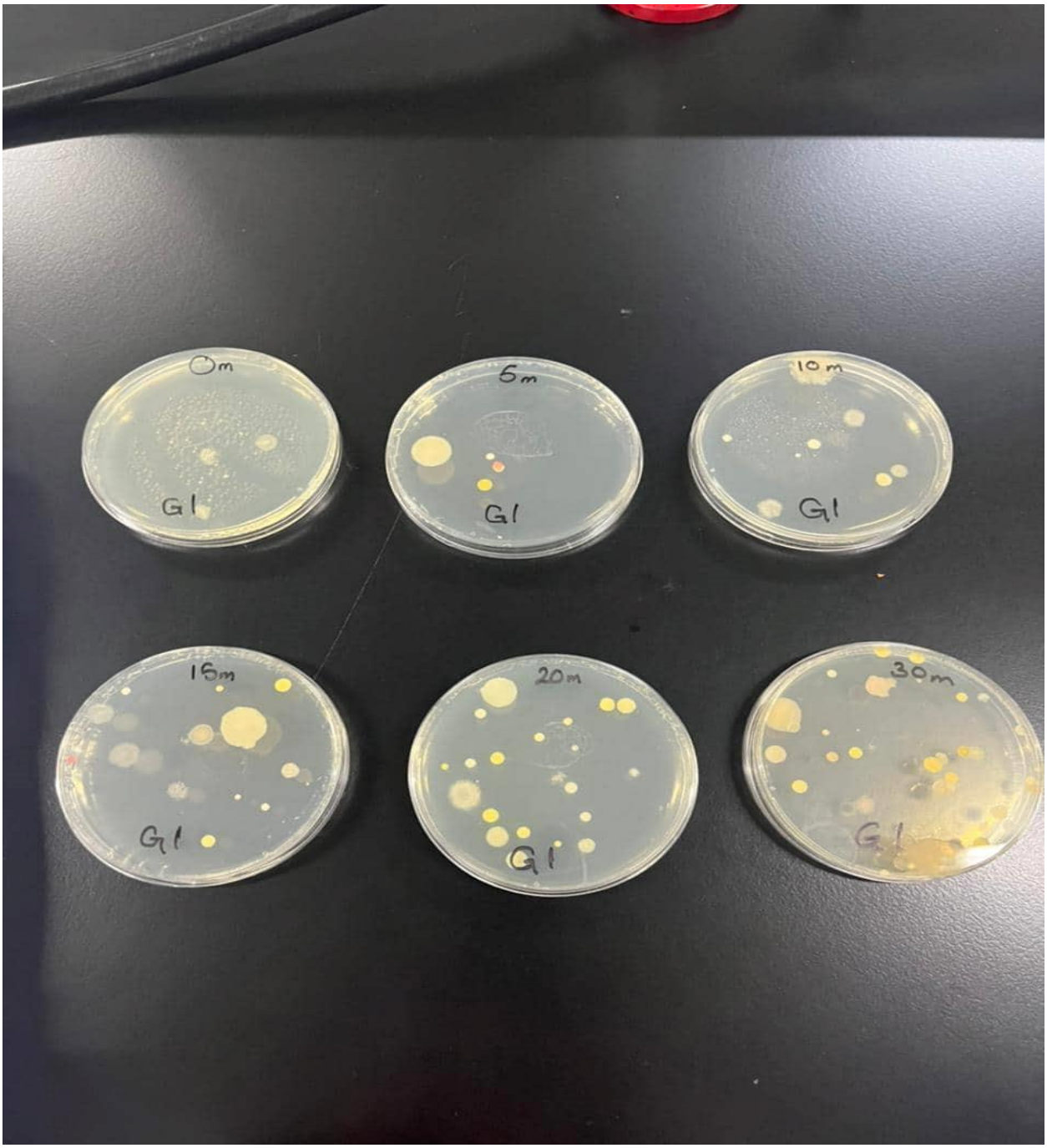

Figure 3: 6 plates were placed in the laboratory room air. (0, 5, 10, 15, 20, 30 minutes)

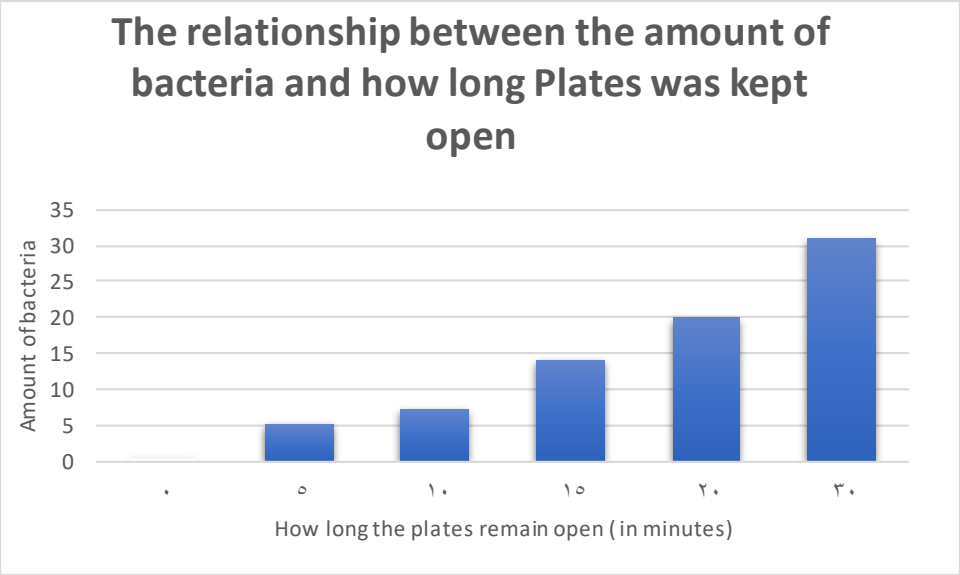

Chart 1: The relationship between the number or amount of bacteria and how long Plates was kept open.

Discussion

Microbial flora the previous results showed the presence of the largest amount of microbial in the nails, because it contains a solid layer that reduces the conduction of water and cleaning materials to the inside, which causes the growth of microbial at a higher rate than others, while the skin was less microbial growth than the nails, due to washing with water while the mouth is less than others Although it may contain many microbial that cause many diseases such as teeth decay and others. And around the eye there are also bacteria. But one of the most common places in the human body that contain bacteria are the nails.

Microbial Content in the Air: The previous results showed the relationship between time and microbial growth as shown in the previous graph. It is a positive relationship. The more time that the air is exposed to, the greater the growth of microbes, due to the greater the period of time the surface is exposed to the air, and thus the contact of microbial surfaces becomes more. There was a defect, as the pallet with number 0 was found in which bacteria may have been opened by mistake and exposed to air.

Microbial content of objects: microbial are present everywhere and on the surfaces. It is normal to find them on the bench and hood. Perhaps the bacteria were found on the hood more than the bench because the bench is constantly sterilized.

Conclusion

Microorganisms are everywhere – in the water, in the air, in the animal body, and so on. They can easily spread to the environment in which they prefer. There are different types of microorganisms growing on Luria broth agar and nutrition agar under the same physicochemical conditions. As for microbial content of objects, they are everywhere. Appropriate sterilization methods must be observed to protect ourselves from diseases.

References

1. https://bio.libretexts.org/Courses/North_Carolina_State_University/MB352_General_Microbiology_Laboratory_2021_(Lee)/02%3A_Cultivation_of_Microbes/2.02%3A_Introduction_to_Bacterial_Growth_and_Aseptic_Techniques