

## Revival of Pathology Museum teaching-Student's perspective

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### Abstract

**Objective:** To study the effect of museum teaching in pathology from student's perspective.

**Material & Methods:** 32 students from the 4th term batch of Malabar Medical College who were randomly selected. Verbal consent was taken from each student. Self-administered questionnaire were administered after the session. These questions were analyzed by the investigator.

**Result:** A total of 32 students participated in this study. Mean age of study group was 21 yrs. 68.7% of students visited the museum at least once a week. 65.6% felt that the 20 minutes allotted for museum pathology sessions were not enough. 96.8% of the students agreed that the museum sessions contributed positively to the quality of learning in Pathology. 78.1% felt that it would be effective only for a small group constituting 6-10 students. All the students (100%) agreed that the pathology museum in the college required improvement.

**Conclusion:** Pathology museum sessions are a powerful teaching method which will help in better understanding and effective learning of the subject. It is best conducted in small groups of 6 to 10 students.

**Keywords:** Pathology museum, Teaching method, Small groups, Effective self-learning

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undergraduate pathology students in our institution & to know their perspective about this teaching method.

### Objective

To study the effect of museum teaching in Pathology from student's perspective.

**Ethical clearance:** This study was undertaken as a part of basic course in medical education. Ethical clearance taken from the institutional ethical committee.

### Introduction

Medical museums were essential medical tools, particularly in teaching anatomy, pathology, surgery for both undergraduates & post graduates. A well maintained pathology museum is often a source of information on many diseases and regular visits to a pathology museum are therefore considered an essential component of teaching pathology to medical students<sup>[1]</sup>.

Due to lack of space, some institutions housed satellite museums in various departments while others laid more importance to research & thus converted the museums with research facilities<sup>[2]</sup>. Compounding to these problems, advances in technology, have led to the decline of the pathology museum as a teaching method<sup>[1-4]</sup>.

Convincing newer medical colleges to establish a medical museum would be difficult due to its initial high cost and need of experienced staff, making some colleges totally abandon this novel educational tool, while others like Anatomical University of Leiden, Medical Centre<sup>[3]</sup> went ahead with upgrading their museum with the suitable newer technologies.

This study was undertaken to know the impact of pathology museum teaching as an effective tool for

### Material & Methods

The study included 32 students from the 4<sup>th</sup> term batch of Malabar Medical College who were ready to volunteer for the study. The aim of the study and the method of conducting the study were described in detail to all the volunteers and consent was taken from all the students.

After 2 lecture class of 40 min each, these students were taken to the pathology museum for 20 min and explained the specimen related to the class taken in detail. A self-administered questionnaire was given after the end of these sessions. The questionnaire had ten questions which were later analyzed by the investigator.

### Observations & Results

A total of 32 students participated in this study. Mean age of study group was 21 yrs with maximum age being 23 yrs and minimum 20 yrs. 68.7% of students visited the museum at least once a week (Table 1). The main reason for not going to museum was lack of interest (Fig. 1).

Majority of the students agreed that the best time to visit the museum would be just after the class which

helps in better understanding of the subject (Table 2). 65.6% felt that the 20 minutes allotted for museum pathology sessions were not enough (Fig. 2) and have recommended at least 30 minutes to be allotted for this session.

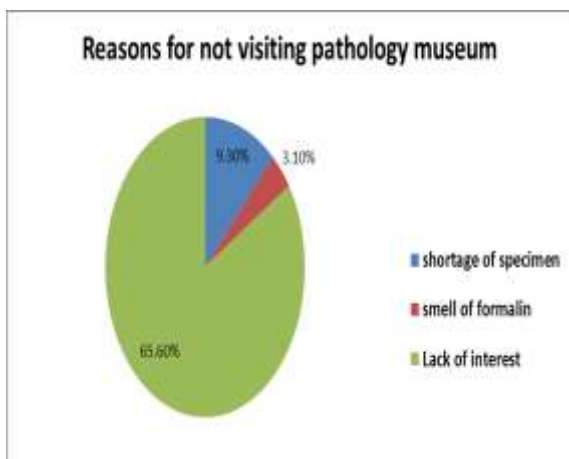
96.8% of the students agreed that the museum sessions contributed positively to the quality of learning in Pathology and help in better understanding of pathology subject. They also felt that it is a tool for self study. However, 78.1% felt that it would be effective only for a small group constituting 6-10 students, which will allow equal attention and better viewing of the specimen simultaneously by all the students (Fig. 3).

96.8% of students were convinced that such Pathology museum sessions should be part of the regular Pathology teaching. When asked whether these sessions would help better clinical correlation and so should be included in the final year postings, 84.3% agreed to it while 12.5% could not form an opinion (Fig. 4).

All the students (100%) agreed that the pathology museum in the college required improvement. 65.6% suggested physical rearrangement of museum that will help provide more space and light. 18.1% wanted to add digital component to the existing museum and another 17.1% favored addition of charts and models to the museum (Fig. 5).

**Table 1: Frequency of student's visit to pathology museum**

Weekly visits	Monthly visits	Only when required
68.7%	6.2%	25.1%

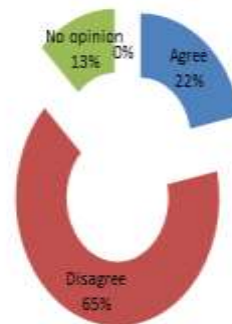


**Fig. 1: Reasons for not visiting the pathology museum**

**Table 2: Best time to visit the museum**

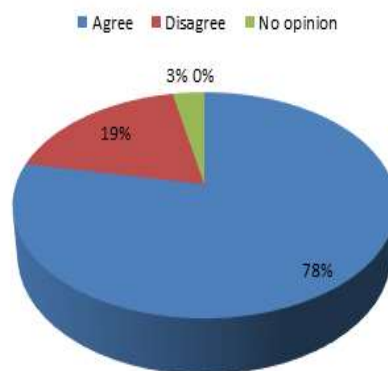
Before the lecture class	After the lecture class	Free time in between the classes
1%	95.6%	3.4%

**Adequacy of 20 min for pathology museum teaching**

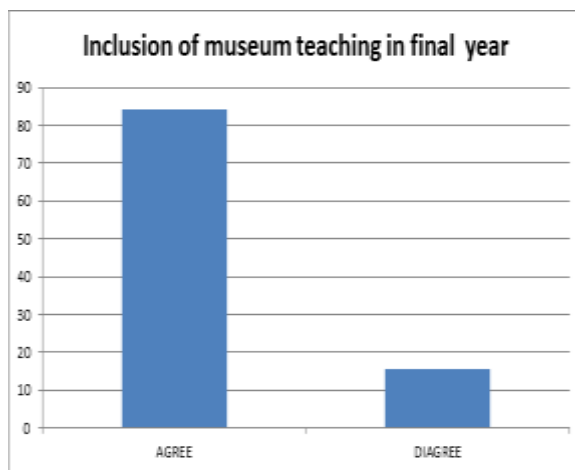


**Fig. 2: Time adequacy of 20 min enough for pathology museum teaching**

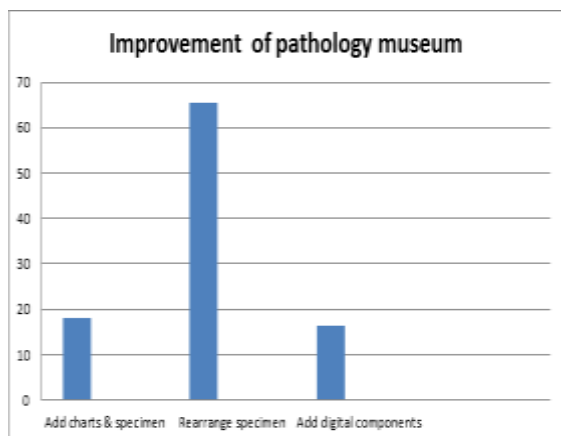
**Pathology museum teaching effective for small groups**



**Fig. 3: Efficacy of pathology museum teaching for small groups**



**Fig. 4: Opinion about inclusion of pathology museum teaching session in final year**



**Fig. 5: Improvement of pathology museum**

### Discussion

This study was conducted to know the impact of pathology museum teaching on the undergraduate students. Reintroduction of one of the oldest methods was met with encouragement & effective feedback.

Over the years pathology museums have taken a back seat, with our study also showing that majority of students visited the museums only in practical classes once in a week. Students should be encouraged by the universities to visit the museum as was done in Anatomical university of Leiden<sup>[3]</sup>. The major cause of this was lack of interest as also seen in other studies<sup>[5]</sup>.

Pathology museum teaching should be dedicated period where the students learn pathology with the help of specimen, charts & audiovisual mode. Our study also states the same findings with students emphasizing that 20 minutes time has to be extended to minimum of 30 minutes class or as a session after each clinical posting similar to the studies conducted in Medical school at UiTM Malaysia<sup>[6]</sup>.

Pathology museum teaching sessions should be included in the integrated medical curriculum<sup>[7,8]</sup> by correlating the pathogenesis of a disease with clinical case discussions as observed in our studies where the students wanted to have pathology museum sessions during clinical posting too. These reforms are giving way to modern museums as in Medical museum of Kawasaki<sup>[8]</sup>. They equipped the museums with more organ exhibits, illustrative panels, question & answer boards, which will encourage self learning, which was also emphasized by students in our study too. These kind of modern medical museums are more attractive to medical students than passive audiovisual aids<sup>[8]</sup> thus helping to get the students back to museum.

### Conclusion

Pathology museum sessions are a powerful teaching method which will help in better understanding and effective learning of the subject. It is best conducted in small groups of 6 to 10 students. Each session can be at least 30 minutes in duration. It should be recommended not only in Pathology

curriculum of the second MBBS course but also as a part of integrated teaching in final year MBBS as it helps in better clinical correlation. To encourage the students to visit the museum, it should be made student friendly with better space, more lighting and seating arrangements. Addition of more charts and models will improve the academic content of the museum. The concept of digital museum is certainly a value addition and the future of Pathology museums.

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