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Original Research Article**Easy computer assisted teaching method for undergraduate surgery****Vijay P Agrawal****Department of General Surgery, NKP Salve Institute of Medical Sciences & Lata Mangeshkar Hospital, Nagpur.****Correspondence Info:**

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E-mail: vijugunnu@gmail.com**Abstract**

Use of computers to aid or support the education or training of people has become commonplace in medical education. Recent studies have shown that it can improve learning outcomes in diagnostic abilities, clinical skills and knowledge across different learner levels from undergraduate medical education to continuing medical education. It also enhance the educational process by increasing access to learning materials, standardising the educational process, providing opportunities for asynchronous learning, and offering learners access to multiple resources to further explore a topic. This paper describes a simple computer assisted teaching method for undergraduate surgery.

Keywords: Computer, Medical education, Surgery**1.Introduction**

Any use of computers to aid or support the education or training of people is called as computer assisted learning.[1] It has become commonplace in medical education. Studies of various authors have shown that it can improve learning outcomes in diagnostic abilities, clinical skills and knowledge across different learner levels from undergraduate medical education to continuing medical education. It also enhance the educational process by increasing access to learning materials, standardising the educational process, providing opportunities for

asynchronous learning, and offering learners access to multiple resources to further explore a topic. [2][3][4][5][6]

Clinical opportunities for medical students are diminishing with decreasing length of hospital stay for many surgical procedures. We get a finite period to complete the course. This article describes a simple computer assisted teaching method for undergraduate surgery which can be adapted by any medical teacher for any subject.

2.Materials and Methods**2.1 Instruments required: (Figure 1-5)****Fig-1.Laptop with Microsoft windows****Fig-2.Projector**

Fig-3. Wireless mouse



Fig-4. Wireless keyboard



Fig-5. Wireless pointer



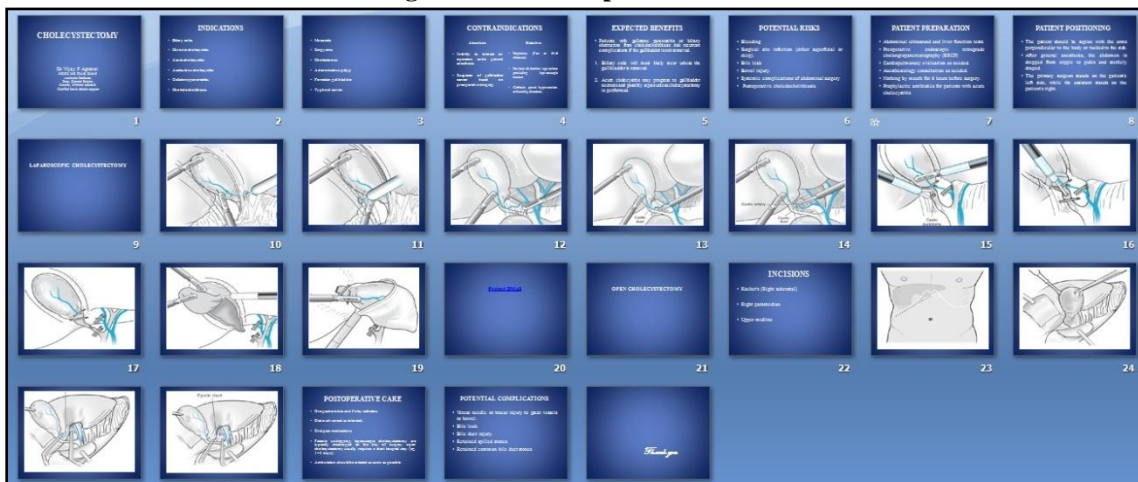
Laptop is connected to the projector. Mouse, keyboard and pointer devices are connected to the laptop. The system is ready for use.

For example: A Simple way to take surgery tutorials for medical undergraduates is shown below.

2.2 Surgical operative procedures:

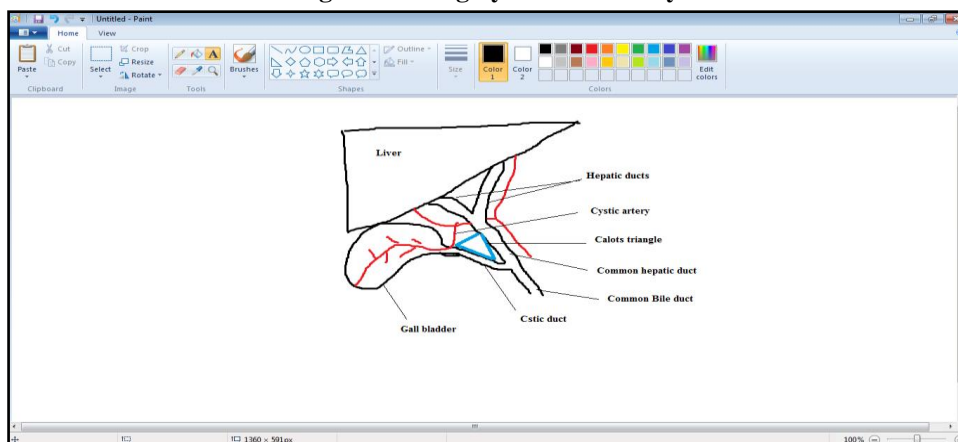
2.2.1 Make a presentation in power point along with videos. (Figure-6)

Fig-6: Power Point presentation slides



2.2.2 Explain the anatomy by drawing with the help of mouse and keyboard in paint (Figure 7)

Fig-7: Drawing by mouse and keyboard



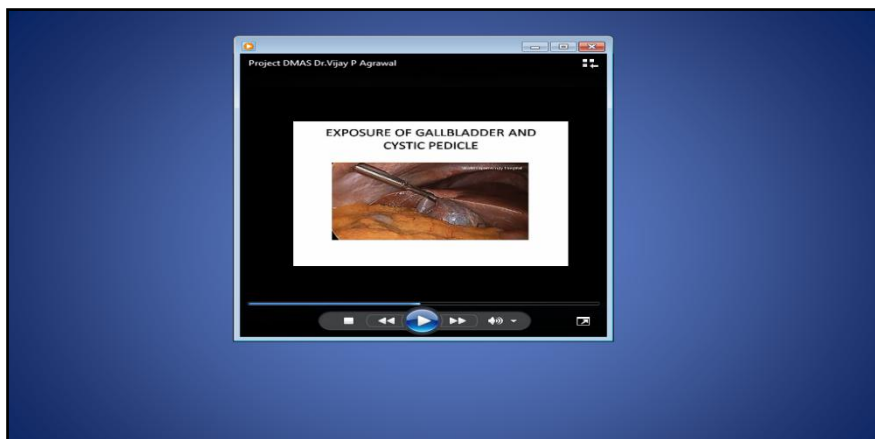
2.2.3 Show & explain the various instruments used in the procedure (Figure 8)

Fig-8: Sponge holding Forcep



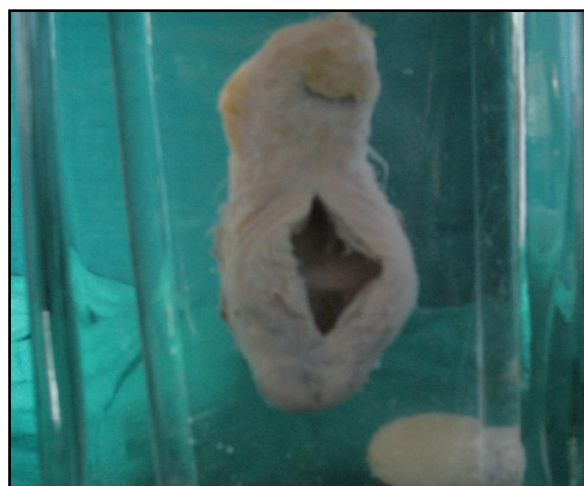
2.2.4 Show & explain the operative videos with the help of pointer (Figure 9)

Fig-9: Operative videos



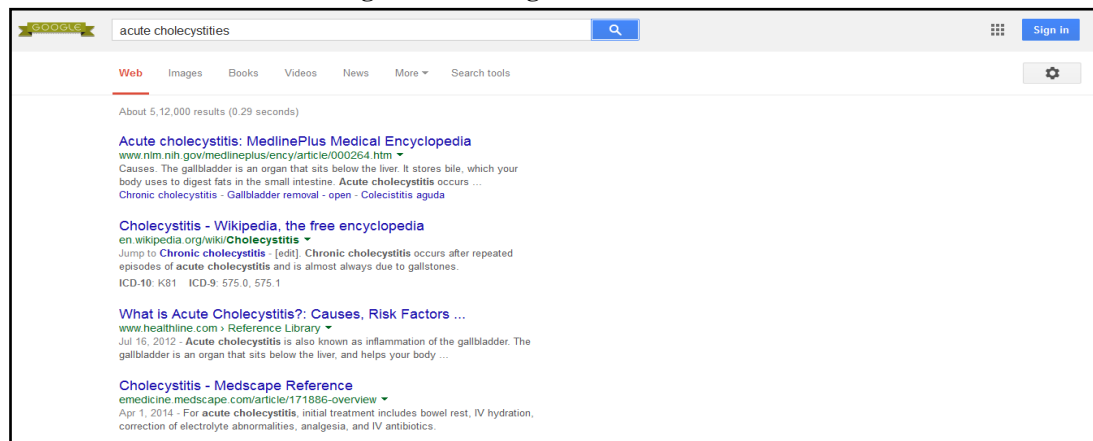
2.2.5 Show and explain the surgical pathology (Figure 10)

Fig-10: Figure for explaining surgical pathology



2.2.6 Show and explain the online material available related to the topic (if connected to internet) (Figure 11)

Fig-11: Searching material on internet



3.Results

We have the collection of presentations and videos in our E-library. It is easy to access the library and teach the students.

4.Discussion

Advances in computer technology have caught the attention of many educators and researchers. Computer based instructional applications are considered an effective alternative to traditional teaching methods. Today in various educational institutes, interactive computer programs are used to teach students.

This paper is not about developing programs or application but a simple teaching method which can be added to the traditional teaching method. In addition, videos can be made from the presentations along with your voice make it available in your college or department online site so that students can revise and go through the presentation again at any time they require.

The only limitation is time required to prepare the presentation and practice to draw in paint brush. But once prepared, it will be a readymade material for the next batch.

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