



MULTIMEDIA PATIENTS' EDUCATION

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Guest Lecture



Multimedia in patient education

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Current Scenario

- Multimedia has been used as a learning resource for some years
- The benefits of multimedia were late in reaching doctors
- Early products were little more than 'books-on-CD-ROM'
- Current material commonly uses the additional functionality that multimedia offers - animation


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Patient's involvement

- Greater demand from patients for involvement in decision making process
- Well-informed patients are better able to support their health


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Current Scenario

- Are patients satisfied?
- Feedback from patients seems to suggest otherwise.
- This is highlighted when a complication occurs


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Problems

- Patient literacy
- Language barrier
- Difficulty in understanding medical terms
- Over-reliance on information received from the net
- 'Shopping' for medical advice

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Inability to communicate

- Poor literacy and ineffective communication has been the stumbling block for physicians till a few years back
- Blind faith in the treating physician
- Language barriers persist
- Manifested in extreme cases with the relatives of a patient attacking doctors/ destroying property

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Internet

- A revolution has occurred in patient's access & use of health care systems.
- In 1997, a survey revealed that 43% (of 40 million) people who had accessed the internet in the last 1 year had used it to search for health related information.
- By 2003, this figure had grown to 160 million.

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Result

- Millions of health related web sites
- A variety of individuals & organizations with various motivations (?primarily commercial)
- All vying to be the definitive source of information

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Reliability

- Patients demand new procedures
- Bring up rare and uncommon side-effects of drugs
- Complications of any procedure is highlighted
- Litigation may be more, relying on data from the US
- Despite nearly all web sites declaring that the definitive source of information and treatment is the treating physician

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Solution

- Clinicians have to include patient education
- Patient behavior & clinical outcome can be modified by providing health education in a non threatening & interactive environment, preferably before the procedure
- Consent for procedure should be taken after this discussion

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Methods

- Classically involves direct discussion with patient and relatives
- Charts in waiting area
- Pamphlets and handouts for people visiting clinics
- Exhaustive consent forms, with medical terminology which fails to convey and satisfy
- Videos displayed on TV monitors

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Multimedia

- Latest and currently the best modality
- May be unattended e.g. interactive kiosks
- Or with a doctor present

"A picture is worth a thousand words"

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Improvement of the Educational Process by Computer-based Visualization of Procedures: Randomized Controlled Trial

Enzenhofer M, et al, J Med Internet Res 2004

- Satisfaction and knowledge increased
- Time needed for conversation was slightly more but not statistically significant
- No difference due to differing age or educational levels

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The multimedia computer for low-literacy patient education: a pilot project of cancer risk perceptions

Wofford JL, et al MedGenMed 2001

- Mean time for presentation significantly longer with old age and with no prior computer use
- Despite a high proportion of no prior computer use (60.8%), there was a high rate of agreement (88.7%) between audio-computer presentation and subsequent verbal questioning

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Multimedia Patient Education For Cancer Genetic Testing

-Budman, Simon H

- A patient education CD-ROM for individuals considering BRCA 1/ 2 testing
- *Under development*

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Prerequisites

- A workstation (need not be the latest)
- Dedicated software
- Hardware cost approx Rs 35,000
- Software cost varies from zero to 1.5 lakh

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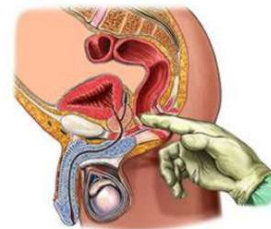
Some Examples

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Rectal examination

- Information about benefit of examination can make patients co-operative

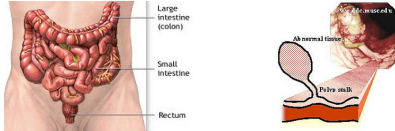


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Colonoscopy

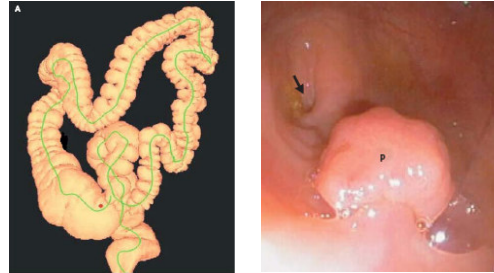
- Potentially embarrassing procedure
- Uncomfortable
- Photos can explain the procedure



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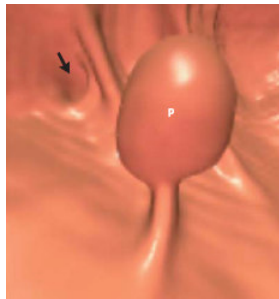
Colonoscopy (contd)



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Virtual colonoscopy



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Barium enema study



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Ophthalmology



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Cardiology



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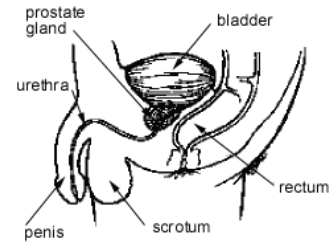
Prostate Cancer

- What is the prostate gland?
- What is prostate cancer?
- Who is at risk for prostate cancer?
- Possible Symptoms of Prostate Cancer
- How does my doctor check my prostate?
- What is the PSA test?
- Who should be screened?
- What are the disadvantages of screening?
- How do I decide whether to be screened?
- What are the treatment options for prostate cancer?

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What is the prostate gland?



Male reproductive system

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Possible Symptoms

Call your doctor if you have any of these symptoms:

- Difficulty starting to urinate
- Less force to the stream of urine
- Dribbling after you finish urinating
- Frequent urination
- Blood or pus in the urine
- Pain or burning feeling while urinating
- Pain with ejaculation
- Hip or back pain that does not go away over time

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Conclusion

- Multimedia can provide more effective information
- May decrease patient interaction time
- The patient is satisfied with the consultation/ procedure
- Initial cost
- Dedicated person needed for maintenance
- Available in few languages at present

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