



Assessment of perception of patients after MRI Scan

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Abstract

Purpose: The aim is to assess the Perception of Patient After MRI Scan.

Methodology: A prospective study was conducted by making objective type questionnaire and filled it by students which were on clinical posting.

Result: Out of 30 patients result shows that only 7 patients fill the consent form while from rest of 23 patients no any consent is taken. 25 patients give positive answer for MRI technologist about taking of prior history of any surgery, implants, dental fillings etc. while 05 patients give negative answer for MRI technologist about taking of prior history of any surgery, implants, dental fillings etc. 25 patients are informed about the MRI procedure and duration by the staff prior to scan while 05 patients are not informed about the MRI procedure and duration by the staff prior to scan. Out of 30 patients result shows that 27 patients are satisfied with the behavior of MRI technologist, only 3 patients are not satisfied with the behavior of MRI technologist. Out of 30 patients 27 patients goes with the answer that the queries solved by the MRI technologist while 03 patients answered that their queries not solved by the MRI technologist. 24 patients answered that gown provided was clean or tidy while 6 patients answered that gown provided was clean or tidy. 15 patients answered that only one person present during the examination while 8 patients answered that only one person present during the examination and 7 patients don't give any answer from these because no any person present with them during the examination. 17 patients felt pain inside the MRI machine while 13 patients not felt pain inside the MRI machine. Out of 30 patients 28 patients are satisfied with the examination while 02 patients are not satisfied with the examination. Out of 30 patients 25 patients feeling comfortable during the examination while rest of 05 patients not feeling comfortable during the examination. 24 patients answered that gown is provided to them during the examination while 6 patients answered that gown is provided to them during the examination. 19 patients feeling claustrophobic inside the magnet while 9 patients not feeling claustrophobic inside the magnet. 22 patients face uncomforted due to loud noise during scan while 08 patients not face any uncomforting due to loud noise during scan. 24 patients answered that earphones provided during the scan while 06 patients answered that earphones not provided during the scan. Out of 30 patients 28 patients feel that earphones reduce the noise during the scan while 2 patients not feel that earphones reduce the noise during the scan.

Conclusion: It is concluded that mostly all the facilities which are provided before and during the procedure are good. Only the highly negative results were found for the filling of consent form consent is only taken from the patients going through contrast studies. While in other examinations only prior history of surgery, metallic implant, dental filing, pace maker, cardiac surgery etc. is taken. It is important to get consent filled by the patient or his/her guardian.

Keywords: consent form, MRI, perception etc.

Introduction

MRI is medical imaging process which uses magnet to reconstruct images of body tissues and helping in differentiate between normal tissues and abnormal tissue. MRI is different from the other modalities of radiology department it used to assess soft tissue enhancement. Previous from the examination consent from was signed by the patient and MR technician explain him/her about the examination. Check pervious history of surgery and any contraindication. During the actual procedure in most cases, the specialist will ask patient to lie on your back on a table that is part of the MRI scanner. Patient head, chest, and arms may be held with straps to help you remain still. The table will slide into the space that contains the magnet. A

device called a coil may be placed over or wrapped around the area to be scanned. A special belt strap may be used to sense patient breathing or heartbeat. This triggers the machine to take the scan at the right time. If an IV will be needed for the test, this will have been inserted into your body by now as well. It is customary that the MRI staff will be nearby during MRI scan. There are a number of ways to communicate with the staff during the test. Sometimes patient can hold a buzzer to contact the staff so patient don't have to talk or move his head. In most cases the specialist will be able to talk to patient via an intercom and in some cases patient will be able to talk back without affecting the scan. Patient table will then be slide into the large round tube that

contains the magnet. When patient are positioned inside the scanner patient will hear a fan and feel air moving. Patient may also hear tapping or snapping noises as the MRI scans are taken. Earplugs or headphones with music are often given to reduce the noise. It is very important to hold completely still while the scan is being done. Patient will not have pain from the magnetic field or radio waves used for the MRI test. During the test patient may be asked to hold his breath for short periods of time. Patient will most likely be alone in the scanner room, but the technologist will watch and monitor patient through a window. Patient will be able to talk with them through a two-way intercom if needed. If contrast material is needed for patient test, the technologist will send it through the intravenous (IV) line in patient arm. Patient may feel some coolness and flushing as it is put into patient IV. In rare cases, patient may feel a tingling feeling in the mouth if patient have metal dental fillings or warmth in the area being examined. These are both normal. Tell the technologist if patient have nausea, vomiting, headache, dizziness, pain, burning, or breathing problems.

An MRI test usually takes 30 to 60 minutes but can take as long as 2 hours and are usually done as an outpatient procedure, which means patient can go home right after the test is completed.

Factors that affect patient perception having MRI scan

- Way of treating by technician- by proper treating and assurance it's possible to make patient more comfortable and fearless. A good communication between the MRI technician and patient affects the perception of patients having MRI scan. By having knowledge about their examination patients feel relief and comfortable.
- Design of MRI scanner- huge closed space of MRI bore makes them conscious about that and some patients having fear of closed space –claustrophobia, having difficulties in performing MRI scan.
- Knowledge- not having proper knowledge about the MR scan affects patient perception having MRI scan. They felt what's going on with them and getting more emotional stress and fear.
- Time duration of MR scan. The length of the exam depends on the type of study being performed.

Figure 1. showing how the patient feels inside MRI gantry.

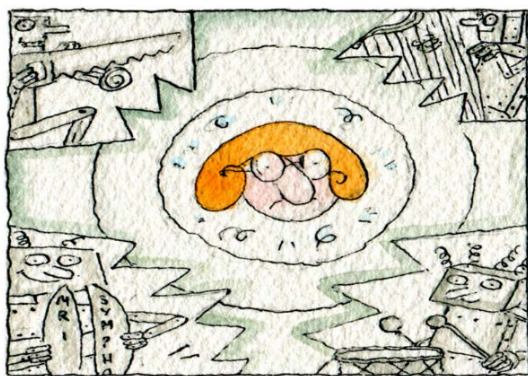


Fig 1: Showing patient feeling inside the gantry

Aim

The aim of the study is to evaluate the patient’s satisfaction after the MRI examination.

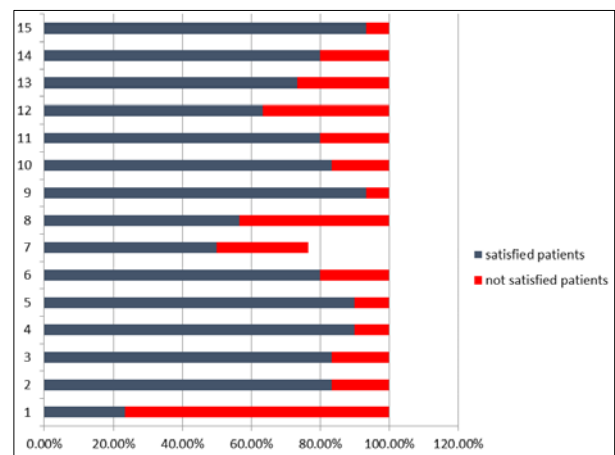
Materials and Methods

In this study an objective type questionnaire is designed containing 15 questions filled from 30 patients. Which were going through various procedures like MRI Brain, MRI Neck, MRI Knee, MRI L.S. Spine, MRI Shoulder, MRCP, MRI C. Spine, MRI Neck, MR Angiography etc. These Questionnaires were distributed to the patients after their MRI procedures. They were explained the purpose of questionnaire. Purpose of filling of questionnaire explained to patients. Questionnaires do not contain any column for name and batch to maintain the privacy of patient’s results and to get the best results.

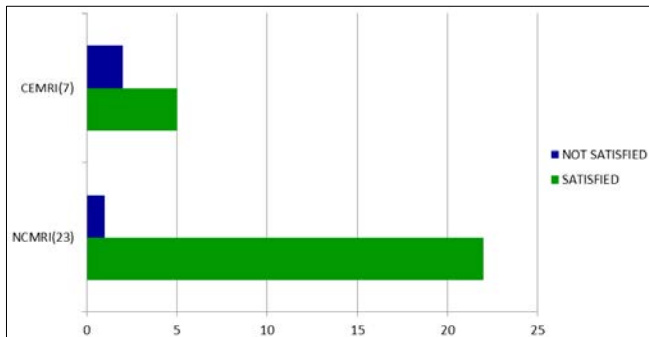
The sample questionnaire is given in table 4.1 (Below)

QUESTIONNAIRE	
1. Did you fill consent form?	
Yes { }	No { }
2. Has MRI technologist taken your prior history of any surgery, implants, dental filling etc.?	
Yes { }	No { }
3. Were you informed about the MRI procedure and duration by the staff prior to scan?	
Yes { }	No { }
4. What is your perception about MRI technologist behavior?	
Yes { }	No { }
5. Were your queries solved by the MRI technologist?	
Yes { }	No { }
6. Was your gown clean and tidy?	
Yes { }	No { }
7. How many people were present during examination?	
Only one { }	More than one { }
8. Have you felt any kind of pain inside the MRI machine?	
Yes { }	No { }
9. Were you satisfied with your examination?	
Yes { }	No { }
10. Were you feeling comfortable during examination?	
Yes { }	No { }
11. Were you provided with a gown during the examination?	
Yes { }	No { }
12. Were you feeling claustrophobic inside the magnet?	
Yes { }	No { }
13. Did you face uncomforted due to loud noise during scan?	
Yes { }	No { }
14. Were you provided with earphones during scan?	
Yes { }	No { }
15. Did you feel that earphone reduce the noise and made scan easier?	
Yes { }	No { }

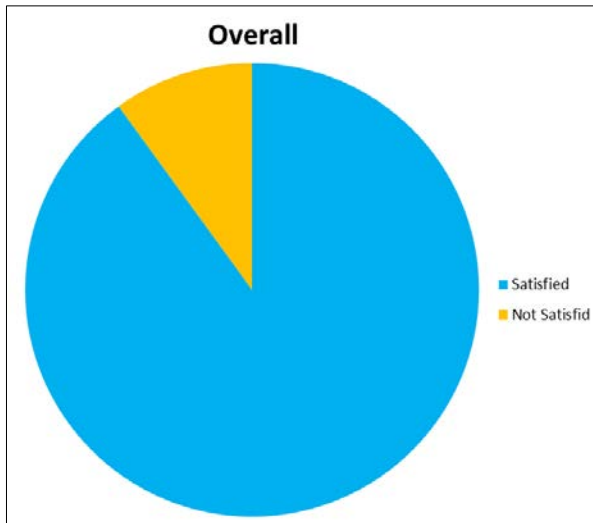
Fig 2



Graph 1: Total patient satisfaction rate



Graph 2: Satisfaction among patients of NCMRI and CEMRI



Graph 3: Overall result for satisfaction of patient from procedure

Questions	Yes	No
Did you fill consent form	7	23
Has MRI technologist taken your prior history of any surgery, implants, dental filling etc.	25	5
Were you informed about the MRI procedure and duration by the staff prior to scan	25	5
What is your perception about MRI technologist behaviour	27	3
Were your queries solved by the MRI technologist	27	3
Was your gown clean and tidy	24	6
Have you felt any kind of pain inside the MRI machine	17	13
Were you satisfied with your examination	28	2
Were you feeling comfortable during examination	25	5
Were you provided with a gown during the examination	24	6
Were you feeling claustrophobic inside the magnet	19	11
Did you face uncomforted due to loud noise during scan	22	8
Were you provided with earphones during scan	24	6
Did you feel that earphone reduce the noise and made scan easier	28	2

Discussion and Conclusion

The results of the present study show that out of 30 patients 93.34% patients are satisfied with the procedure and only 6.67% patients are not satisfied from the procedure. It is concluded that mostly all the facilities which are provided before and during the procedure are good. Only the highly negative results were found for the filling of consent form consent is only taken from the patients going through contrast studies. While in other

examinations only prior history of surgery, metallic implant, dental filing, pace maker, cardiac surgery etc. is taken. It is important to get consent filled by the patient or his/her guardian.

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