

A Study Done To Identify The Availability And Type Of MRI Machines In A Specific Radius And To Evaluate The Feasibility Of Establishing The Same At An Upcoming 200 Bedded Super Speciality Hospital In Kukatpally Area Of Hyderabad.

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I. Introduction

The purchase of a MRI machine is a critical decision for any diagnostic centre or an hospital. The major reason for this is the high capital expenditure that will be incurred in the purchase of the machine. The high cost and also the high maintenance cost result in high break even figures resulting in financial stress for the centre. It is essential that a proper competitor study is done before the decision to procure is done.

This study was done for a proposed 200 bedded super speciality hospital at Kukatpally, Hyderabad. Kukatpally is a densely populated area in Hyderabad and is located close to the IT hub and has many hospitals and diagnostic centres. This study was done to identify the availability and type of MRI machines in the identified radius.

Objectives:

- 1) To identify the availability of MRI machines at various diagnostic centres and diagnostic facilities in hospitals in the designated radius.
- 2) To identify the type of MRI machine available at various places in the designated radius and prominent medical centers in Hyderabad.

II. Methodology

1. The target areas around the identified area were divided into 4 zones for the purpose of the study
Zone 1: Kukatpally / Miyapur stretch
Zone 2: Hitech City/ Madahpur
Zone 3: BHEL/ Nallagandla/ Serlingampally/ Gachibowli/ Khajaguda/ Kondapur
Zone 4: Nizampet / Bachupally
2. Areas in the selected zones were scanned and a list of all the healthcare centres and diagnostic centres in each zone was prepared.
3. Availability and type of MRI machine available at various diagnostic centres and hospitals was found out.

Observations

Table 1 - Zone 1: Kukatpally / Miyapur stretch

Hospitals	MRI
Prasad multi speciality hospital	Not Available
Udbhava women & child hospital	Not Available
Shine gastro centre	Not Available
Holistic	Not Available
Moolchand Neuro Center	Not Available
Sankhya hospital	Not Available
Padmaja hospital	Not Available
Preeti Uro & Kidney center	Not Available
VMR infertility center	Not Available
Vignesh nursing home	Not Available
MCS Neuro hospital	Not Available

KK Reddy Chest and Allergy center	Not Available
J K hospital	Not Available
Sunshine hospital	Not Available
Merit core hospital	Not Available
SVS children's hospital	Not Available
Remedy hospital	MRI 1.5 T
Medwise hospital	Not Available
Madhusudhan hospital	Not Available
AED hospital	Not Available
Prathima hospital	Not Available
Icon hospital	Not Available
Landmark hospital	Not Available
Rainbow hospital	Not Available
Srikara hospital	MRI (under process)
Healio gastro hospital	Not Available
Happy children hospitals	Not Available
Hasini hospitals	Not Available
Archana hospital	Not Available
Ankura women child hospital	Not Available
Sriiven ENT laser hospital	Not Available
Srinivasa children hospital	Not Available
Amrita ENT head neck hospital	Not Available
Sri Aurobindo Eye hospital	Not Available
Lotus hospital for children	Not Available
Udbhava multi s hospital [opening sortly]	Not Available
Vijaya multi speciality hospital	Not Available
Ankura women child hospital	Not Available
Dr Sulochana hospital	Not Available
Vijayasree hospital	Not Available
Vishnu Hospital	Not Available
Harsh hospital	Not Available
Vidya nursing home	Not Available
Sai shiva child hospital	Not Available
Kadimi nursing home	Not Available
Calicium hospital	Not Available
People hospital	Not Available
Sushma nursing home	Not Available
R K multi s hospital	Not Available
Rama devi hospital	Not Available
Gayatri hospital	Not Available
Mana hospital	Not Available
Anupama hospital	Not Available
Suman Onco Surgical center	Not Available
Aakar Asha hospital	Not Available
Ramdev Rao Hospital	Not Available
Omni hospital	Not Available
Kukatpally Multi S hospital	Not Available
Kavya nursing home	Not Available
Ragi Prasad ortho dental hospital	Not Available
Maxivision eye hospital	Not Available
Pranaam	Not Available
RR Ortho Hospital	Not Available
Anurag Hospital	Not Available
Vijaya Nursing Home	Not Available
Anitha Nursing Home	Not Available
Vasavi Eye care Hospital	Not Available
Dr. Chinnareddy Hospital	Not Available

Table 2 – Diagnostic centres zone 1

Diagnostics	Availability
Insight diagnostics	MRI 1.5 T
Sri nandi diagnostic centre	Not Available
New Berg Anand	Not Available
Focus diagnostics	MRI 1.5 T
N diagnostics	Not Available
Path care	Not Available
Robin health care/LAL path labs	Not Available
Tapadia diagnostic	Not Available
Thyrocare	Not Available

Sri Venkat Sai	Not Available
Pragna diagnostics	Not Available
Assure diagnostic centre	Not Available
Aditya diagnostic centre	Not Available
Eye mask diagnostic centre	Not Available
Sai Divya diagnostics	Not Available
RAD labs	MRI 1.5 T
Bhadra diagnostics	Not Available
Lucid diagnostics	MRI 1.5 T
Apollo diagnostics	Not Available
Asian medical diagnostics	Not Available
Doctors diagnostic centre	Not Available
Neha diagnostic centre	Not Available
Apollo diagnostics	Not Available
Green Life diagnostics	Not Available
Shalom	Not Available
Rays	Not available
Shathayu Diagnostics	Not available
Tesla	MRI 1.5 T
Shiva Lalitha	Not available
Vijaya Diagnostics	MRI 1.5 T
Shree Krishna	MRI 1.5 T
Medquest (Madinaguda)	MRI 1.5 T

In Kukatpally and Miyapur area, though there are many hospitals and Diagnostic centers, there are only a few MRI centers.

Presently 1.5 T MRI is available at the following hospitals.

- Remedy Hospital
- Prathima Hospital

1.5 T is available at the following standalone diagnostic centers

- Insight Diagnostics
- Focus Diagnostics
- RAD labs
- Lucid Diagnostics
- Tesla Diagnostics
- Shree Krishna
- Vijaya Diagnostics
- Medquest

The availability and concentration of MRI machines is more in stand alone diagnostic centers than in hospitals. There are no 3 T MRIs in this selected zone.

Fig 1: Availability of MRIs in Zone 1

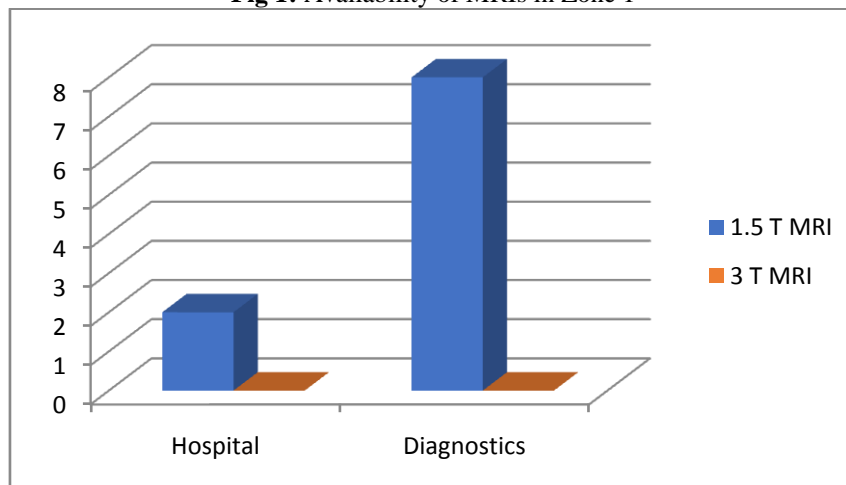


Table 3 - Zone 2: Hitech city area

Hospital	Availability
Maxcure	MRI 1.5 T
Image	Not available
Pace hospital	Not available
Oakridge hospital	Not available
Hegde hospital	Not available
Maxivision	Not available
Vikram hospital	Not available
Ankura	Not available
Srija hospital	Not available
Srinivasa hospital	Not available
Kakatiya hospital	Not available
MAA ENT hospital	Not available
Avis hospital	Not available
Praanadah hospital	Not available
Relive hospital	Not available

Table 4 – Diagnostic centres Zone 2

Diagnostics	Availability
Sai krupa diagnostics	Not available
Revive diagnostics	Not available
Apollo diagnostics	Not available
Star diagnostics	Not available
Poly diagnostics and clinics	Not available
Sri laxmi diagnostic center	Not available
Ambicare diagnostics	Not available
Med quest diagnostics	Not available
Sathya diagnostics	Not available
SRL diagnostics	Not available
Mark diagnostics	Not available
Pluspin diagnostics	Not available

- In this zone 1.5 T MRI is available only at Maxcure Hospitals

Table 5 - Zone 3: BHEL/ Nallagandla/ Serlingampally/ Gachibowli/ Kondapur

HOSPITALS	Availability
Pallavi hospital	Not available
Maruthi hospital	Not available
Himagiri	Not available
Care	MRI 1.5 T
Sunshine	MRI 1.5 T
Shreya hospital	Not available
Citizens	MRI 1.5 T
Indo American Oncology	Not available
KIMS (kondapur)	MRI 1.5 T
Birth place	Not available
Rajitha hospital	Not available
Pranaam	Not available
Winvision Eye hospital	Not available
Asian Institute of Gastroenterology	MRI 1.5 T
Continental Hospitals	MRI 1.5 T

Table 6 – Diagnostic centres Zone 3

Diagnostics	Availability
Sai krupa diagnostics	Not available
Revive diagnostics	Not available
Apollo diagnostics	Not available
Star diagnostics	Not available
Poly diagnostics and clinics	Not available
Sri laxmi diagnostic center	Not available
Ambicare diagnostics	Not available
Med quest diagnostics	Not available
Sathya diagnostics	Not available
SRL diagnostics	Not available

1.5 T MRI is available at

- Care
- KIMS
- Asian Institute of Gastro.
- Continental
- Sunshine
- Citizens

Availability of MRIs in Zone 3

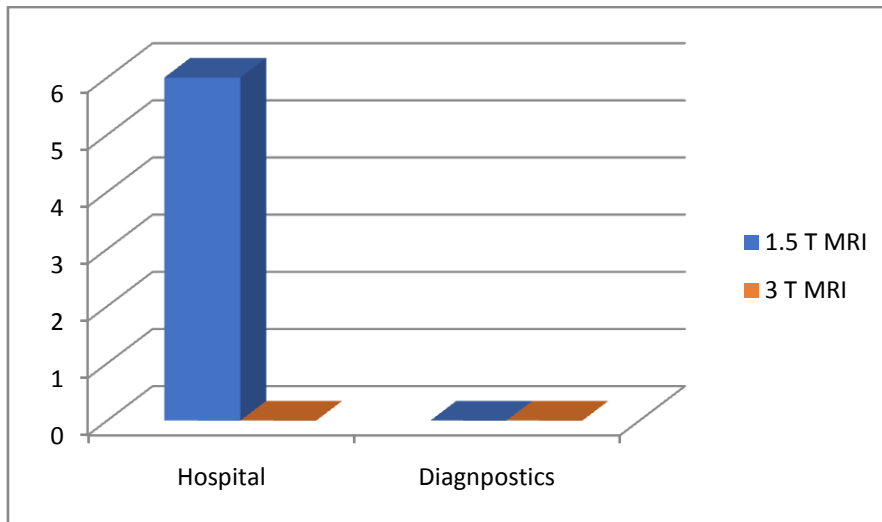


Table 7 - Zone 4: Nizampet - Bachupally

Hospitals	Availability
Sri Sri Holistic	1.5 T
Vision express	Not available
Ferty 9	Not available
Sunrays hospital	Not available
Nest maternity	Not available
Arunodaya multi speciality hospital	Not available
Rudraraju Raghuram hospital	Not available
Sri swasthik hospital	Not available
Relief hospital	Not available
SLG	3 T MRI
Mamtha medical college	1.5 T

Table 8 – Diagnostic centres Zone 4

Diagnostics	Availability
Dhana diagnostics	Not Available
Vijaya diagnostics	Not Available
Aditya diagnostics	Not Available
Thyrocare	Not Available
Samhitha diagnostics	Not Available

1.5 T is available at

- Sri Sri Holistic
- Mamtha Medical College

3 T MRI is available at

- SLG Hospitals. (The hospital is yet to be opened)

Fig 2: Availability of MRIs in Zone 4

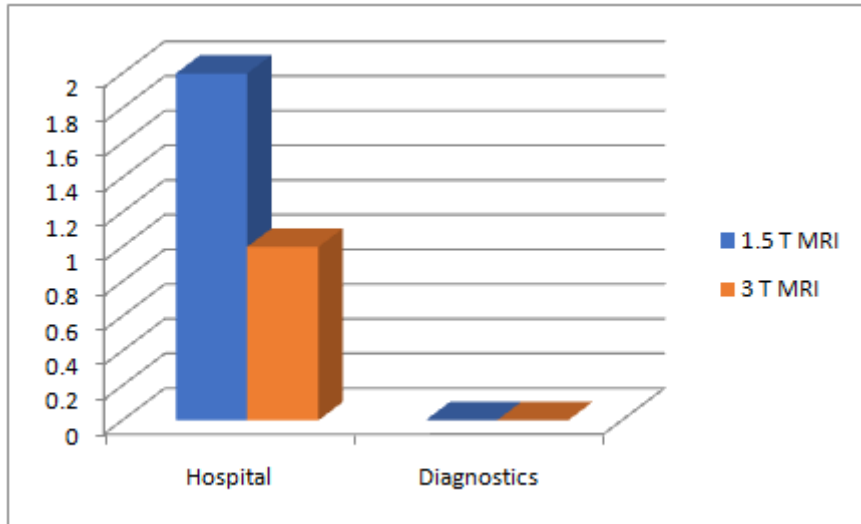


Table 9 - MRI in other prominent Hospitals and Diagnostics in Hyderabad

Hospitals	MRI type
Care B.hills	1.5 T
Care Nampally	1.5 T
Apollo Film Nagar	3 T and 1.5 T
Yashoda Secbad	3 T and 1.5 T
Yashoda Somajiguda	3 T and 1.5 T
Yashoda Malakpet	1.5 T
Sunshine Secbad	1.5 T
KIMS Ministers's road	3 T
Century	1.5 T
Virinchi	3 T
Maxcure (Secretariat)	1.5 T
Global	1.5 T
Aware Global	1.5 T
Vinn Hospitals	1.5 T
Rainbow (B.Hills)	Not Available
Fernandez	Not Available
Vijaya Daagnostics (Himayathnagar)	3 T
Elbit	1.5 T
Lucid B.Hills	3 T
Lucid SecBad	1.5 T
Focus Panjagutta	1.5 T
Tenet B.Hills	3 T
Vista imaging	1.5 T
Tapadia	1.5 T
Medisys	1.5 T
Deccan Hospitals	1.5 T

3 T MRI is available at the following hospitals

- Apollo
- Yashoda Somajiguda
- Yashoda Secnderabad
- KIMS (Ministers Road)
- Virinchi

3 T MRI is available at the following stand alone diagnostic centers

- Vijaya Diagnostics (Himayathnagar)
- Lucid Diagnostics (Banjara Hills)
- Tenet Diagnostics

III. Discussion

In the selected designated radius we have a total of the following centers with MRI facility

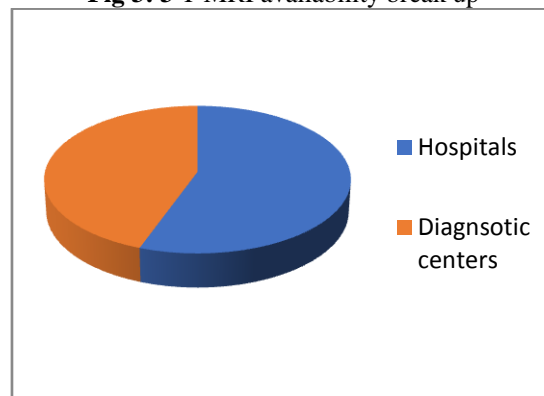
- Zone 1: 2 hospitals and 8 diagnostic centers
- Zone 2: 1 hospital
- Zone 3: 6 Hospitals
- Zone 4: 3 Hospitals

There are a total of 20 MRI machines in the designated radius.

There is only one 3 T MRI, which is coming up at SLG hospitals.

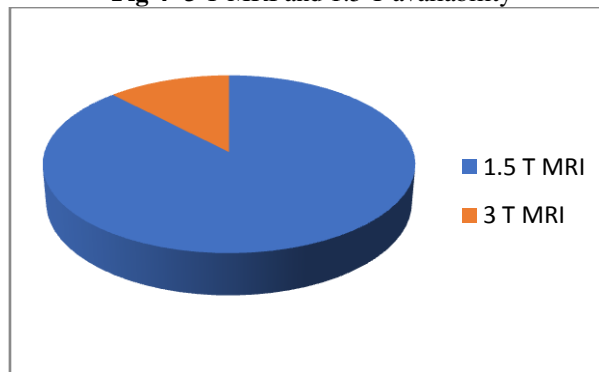
In the city of Hyderabad, based on the observations there are Nine 3 Tesla MRIs of which 5 are hospitals and 4 are diagnostic centers

Fig 3: 3 T MRI availability break up



Based on a rough estimate and from data available on the internet, there are approximately 65 1.5 Tesla MRIs in the city of Hyderabad. These include refurbished and second hand models also.

Fig 4- 3 T MRI and 1.5 T availability



It is seen that compared to the no of hospitals present, MRI facility is present in very few facilities. Most of the hospitals have tie ups with such facilities and refer the patient to them for any MRI investigation. It is also seen that though 3T MRI is very less in no compared to 1.5 T MRI, most of the upcoming centres (especially corporate hospitals) have 3T MRI.

IV. Conclusion

MRI is a high capital intensive equipment and due diligence is required before purchasing the same. A proper competitor study should be done in order to take this critical decision.

P.S.Rakesh Prabhu. "A Study Done To Identify The Availability And Type Of MRI Machines In A Specific Radius And To Evaluate The Feasibility Of Establishing The Same At An Upcoming 200 Bedded Super Speciality Hospital In Kukatpally Area Of Hyderabad." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 5, 2019, pp 24-30.