

Audit To Asses Technical Quality Hysterosalpingography Service In Radiology Department

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Objective:

To assess quality of Hysterosalpingography (HSG) service when compared to National Standards for radiation dose and locally devised standards for procedure success.

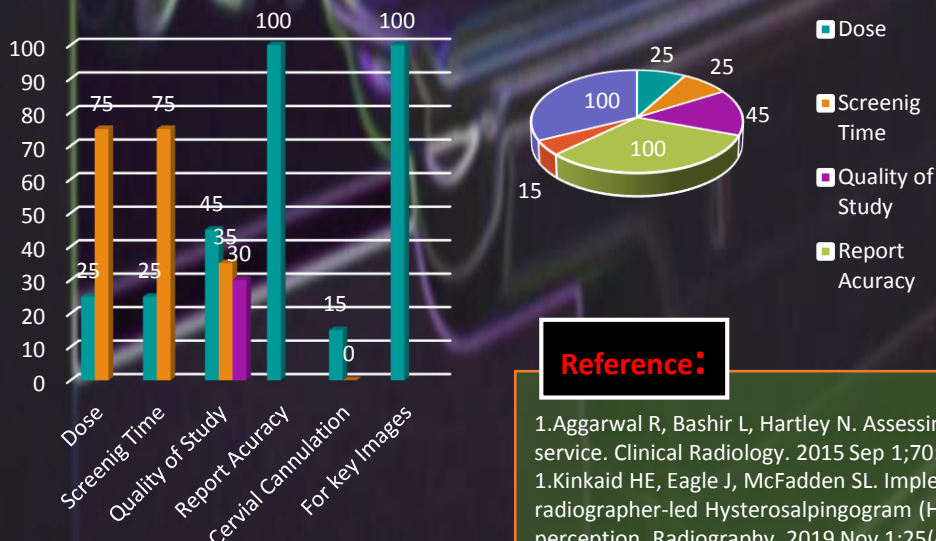
Methodology:

- Setting :** Rehman Medical Institute Study type : Cross-sectional analytical study was carried out from 1st August 2022 to 31st August 2022. **Sample size :** Total patient cohort was 24 .Non- probability consecutive sampling carried out Data collection: All patients underwent a clinical routine imaging protocol of the HSG, including confirmation of LMP to make sure procedure is done at 7th-10th day,.**Data analysis :** Criteria were assessed for technical quality of HSG: Radiation Dose (National DRL not more than 200 cGycm
 - Screening Time: (0.7minutes, National Dose limit, 100% compliance required)
 - Cervical cannulation local standard set at > 95% (100% compliance required)
 - Four key images (early and late uterine and tubal filling and free spill of contrast)
 - Report - 95% concordance required of resident report with consultant report
 - Key images should be of good diagnostic quality and the report should be accurate

Data was analyzed using Microsoft Excel and SPSS version 22 (Armonk, NY: IBM Corp.). The Chi-square analysis determined the dependence between the qualitative variables. Qualitative variables were given as a number (n) and percentage (%). Descriptive statistics on quantitative variables were given as mean \pm SD. Multivariate analysis was used to treat variables that were found significant in the univariate analysis, and $p < 0.05$ was considered significant.

Result:

Our results are totally based on parameters mentioned as standard which are dose, screening time ,quality of study ,report accuracy, cervical cannulation and four key images. We concluded from our results that out of 20 patient 5 patient (25%) had an average dose above 200, while the rest of 75% had standard average dose within required limits . Among 20 patients, 5 patient (25%) had screening time above 0.8 keeping 0.7 as standard, whereas rest of 75% had standard screening time. Three patients (15%) had unsuccessful cannulation. Four key images were 100% adequate in all patients. Among 20 patients 9 (45%) patients had good quality study ,7 patients (35%) had average study and 4 patients (20%) had poor quality study. Report accuracy of our study was 100 %



Conclusion:

We concluded from our results that HSG service was technically inadequate in 25% cases having increased radiation dose, 25% cases with increased radiation time and 20% cases with bas quality study

Reference:

- Aggarwal R, Bashir L, Hartley N. Assessing the quality of the hysterosalpingography service. *Clinical Radiology*. 2015 Sep 1;70:S16-7
- Kinkaid HE, Eagle J, McFadden SL. Implementing a holistic approach to a radiographer-led Hysterosalpingogram (HSG) service: A review of impact and patient perception. *Radiography*. 2019 Nov 1;25(4):365-73