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# Comparative study between virtual laryngoscopy and direct laryngoscopy in diagnosis of cancer larynx

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Virtual laryngoscopy is a useful adjunctive radiological tool in the assessment of laryngeal lesions. It is one of the most recent innovations in the spectrum of post processing techniques. Virtual laryngoscopy is a type of three dimensional reconstruction in which the observation point is placed within the airways to produce an endoscopic like display without the use of endoscope. Thirty patients diagnosed as a laryngeal carcinoma were examined in the national cancer institute, Cairo University. The patients were subjected to both virtual and fiberoptic laryngoscopy.

Virtual studies were calculated and reconstructed from cross sectional images obtained from spiral CT. examination of the neck, on a separate work station using a special software. Comparison between the results of cross sectional images, virtual, fiberoptic laryngoscopy and pathological specimens were done. An excellent overview of the larynx was obtained in all cases. The results of the virtual laryngoscopy and fiberoptic laryngoscopy were comparable. Although fiberoptic laryngoscopy has the advantage of providing direct cues to colour, vascularity, and motility and can also detect early tumor infiltration by picking up subtle mucosal changes, virtual laryngoscopy is considered superior in by passing any obstruction thus providing an excellent view distal to an obstructing lesion can't be traversed endoscopically. Also, CTVE clearly visualizes the different anatomical regions of the larynx in combination with the cross sectional images thus filling in any diagnostic gaps. The combination of virtual laryngoscopy with the axial CT images had correctly upstaged 100% of cases with laryngeal carcinoma compared to that of fiberoptic laryngoscopy which was 66.6%.