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| **Authors** | **Contribution** | **Future research scope** |
| A. Piepsz et.al. [3] | In this study, the medical effectiveness of intrarenal TT is calculated from the renogram by using deconvolution method for data of 591 patients and found that MTT in ordinary kidneys was 3.6± 1.1 min. If the MTT is greater than 7.6 min, a kidney is probably to be obstructed. In vesico-ureteric reflux, TT found extended while it found normal in infection, hypertension, parenchymal disease and slightly irradiated kidneys. | Authors found unpredictability of deconvolution in the case of poor renal function i.e., any data processing method becomes doubtful when the signal-to-noise (kidney counts to background counts) ratio becomes slight. |
| K. Kneaurek,S. Spaventi [4] | Authors compared general purpose deconvolution method in analyzing patient’s data using Matrix algorithm and FFT through deconvolution based on Laplace transformation concept. | Weakness of this article is that negative values and oscillations in IRF curves weren’t avoided by smoothing process or by using low pass filter. |
| C D Russell Et. al. [12] | This study compared an additional systems of computing transit time in frames of 30 objects considering baseline and post captopril renography which is followed by contrast angiography. | In this study, possibility of larger study (>30) can found significant difference in patent’s renal transit time with chronic parenchymal diseases or obstruction etc. |
| Irfan Karagoz [14] | Presented technique of (PBFRI) i.e. Pixel basis functional radionuclide imaging algorithm created on appended deconvolution curve method to increase ability of conventional gamma camera. | This study can be explored by determining the degree of obstruction with MTT and GFR data. |
| H. Rajabi,G.S. Pant [15] | Proposed noise reduction method in which the time activity curves are transformed into low frequency(linear) curve which is filtered deeply without substantial distortion of the renal data. | Comparison using deconvolution analysis of simulated renograms can be done with matrix and FFT methods with least sensitivity factor. |
| M. Rutland [16] | Presented new iterative deconvolution technique which is able to recover the known retention function with a calculated blood curve. | Instead of only considering renal retention function, impulse function can be derived from blood curve. |
| Andre A. Dobbeleira [18] | Applied pixel by pixel method with an appropriate colour scale to true mean transit time in the cortical area, so that parametric image of each kidney can be obtained and allowable to read it immediately. | This study can be explored by considering cortical as well as renal parenchymal and renal pelvis area. |
| Issa I. Al- Shakhrah [20] | This study compared values of renal parenchymal Mean Transit Time by applying matrix inversion deconvolution and Rutland Patlak plot method. | Along with parenchymal MTT other transit time parameters like VTT, RTT and pelvic TT can be compared using those techniques. |
| Ana Silva, M. Cristina *et.al*. [25] | Authors evaluated correlation between renal function and using algorithm MAG3 without samples and Quant EM expert technique. | Though this algorithm helps to evaluate correlation among renal functions the operator needs to know and understand algorithm to maintain standardization of results which seems to be critical. |
| Emily S. Blum [27] | Created a dynamic solution to analyse the radiotracer drainage curves of diuresis renograms using automatic signal analysis and machine learning which allows for earlier detection of obstructed cases with significantly higher precision than drainage half-time. | This design can be explored by including validation of this unique framework in a larger object data. |
| Fadime Demir Mustafa *et. al*. [28] | This study showed a high level of compliance between 99mTc-renal scintigraphy and dynamic renal scintigraphy (99mTc or 99mTc-MAG3) in the assessment of RRF. | Parameters like time loss, radiation exposure to the patients and financial losses are can be compared other than single method used here. |
| Agata Danilczuk Anna Nocun *et. al.* [29] | Here, authors projected the range of ordinary renal function parameters for 99mTc-EC dynamic renal scintigraphy and it has confirmed that the normal value of the secretory and excretory function parameter does not hinge on age, and there are no variances among the object’s sexes and the sides for any parameter. | This study can be explored by including 99mTc DTPA radiotracer and output parameters can be compared with 99mTc MAG3 |

Table 2. Research article’s summary and presented possible future research