



FP02

A success rate of kidney stone treatment by extracorporeal shockwave lithotripsy (ESWL) relate to Hounsfield Unit (HU). What's more in Thailand?

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Objective: To evaluate the Hounsfield Unit on non-contrast computed tomography (NCCT) of kidney stone that make maximum stone free rate by extracorporeal shockwave lithotripsy.

Patient and Methods: From July 2012 to June 2014. We reviewed 202 patients, who underwent both NCCT and ESWL. All patients and stone data were calculate (age, sex, body mass index, stone laterality, stone location, stone density by HU, Stone to skin distance). The result of treatment was assessed after 4 weeks. Stone free or stone fragment less than 4 mm. were defined the success of ESWL.

Results: From 202 patients, 110 patients became stone free and 15 patients had residual stone less than 4mm. The mean value HU of overall stone were 822.3 and the mean value HU that made stone free were 794.8 Finally the success rate of stone treatment by ESWL were 61.9%.

Conclusion: Stone density measured from NCCT that made stone maximal stone free rate was 794.8 HU in the further study may be combine other parameter from CT data such as stone area or stone volume for predict success rate and patient selection more accuracy.