DOI:

Research Article Open Access

Hybrid Iterative Reconstruction Algorithm Improves Image Quality and Helps to Decrease Radiation Dose in 256-Slides Craniocervical CTA

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: H b d I e a e Rec c (HIR); C a ce ca

I age a a a ed a x a , c ed a a ec c a d e e de g b e x e e ced ad g a d a b ded a ca g a d ce g c d . We e a a ed e e age f g ca eg e (D.1.5) f g a e , e e a e , ea a fac a d e e a age a a 4- ca e. I age g a e a g aded a f g: 4, e x ce e a a d ge e g a e ; 3, g d; 2, acce ab e; 1, acce ab e e x ce g a . Ve e a e a g aded a f g: 4, a e ; 3, g d; 2, b a ; 1, b . S ea a fac a g aded a f g: 4, e a a fac ; 3, a fac cc g a f e age, b e fe g d ag c dec a g; 2, a fac cc g e e e age, b d ag b e; 1, ab e e a a e, e e e a fac a e d ag b e. e e a age a a g aded a f g: 4, e x ce e ; 3, g d; 2, acce ab e; 1, - d ag ab e. e age 1 a c de ed a acce ab e. I ca e f e - b e e d ag ee e , e a dec e e eac ed b c e [13].

e D e-Le g P d c (DLP) a d C ed T g a D e I de x (CTDI) d a ed e CT e e e ed ca c a e e ad a d e. e e a ed E ec e D e (ED) S e a e a ca c a ed b d c f DLP a d c e c e c e f c e (c e fac =0.014 S G C) [14].

A a ca a a e e ed eb g e S a ca Pac age f e S c a Sc e ce (SPSS) f W d 32 b ed , e 21.0.0.0 (IBM C a , 2012). We a fe ed a a ab e a d da a SPSS a e f E x ce . e a a e c a ab e e e de ed a ea a da d De a . e ca eg ca a ab e e e de ed a f e e c e e ce age . We c de ed a c a g ca a P a e <0.05. We a ed de e de - e c a e be ee e ea f c a ab e . W e d g c a be ee e ca eg ca a ab e , e ed c - a e e , a d Maa - W e U e f - a a e c de e de e f b ec e e a a f age a . T a e e - b e e e d c b f e age a b e b ec e e d be ee b e e , e ed e e ca c e a e . A C bac > 0.9 d ca e a g c e a be ee e , a d a e e a 0.4, >0.4-<0.7, >0.7-<0.9 d ca e ee , g d, e g d c e a e ec e .

I e d ded c g A, c ded (10 Ma e , 5 Fe a e ; d a e ;

a d b a e a dd e ce eb a a e e , Pec a a c e a d e c e d a d c e e e d e e acc d g d e e c f CTCA. e ea age e f 100 V c a 0.51 e e e a 120 V c (5.96 1.24 . 11.59 1.41 e ec e ; P- a e <0.001). We f d e a e a a e CCA 100 V 0.67 e e e a 120 V c (232.62 13.90 . 344.35 47.45 e ec e ; P- a e<0.0001). I ed ced d e g , e a e a a e ICA 0.7 e e e a 120 V c (238.58 23.04 . 338.97 35.62 e ec e ; P- a e <0.0001). e a e a a e MCA 100 V 0.67 e e e a 120 V c (216.16 37.56 . 321.97 24.56) e ec e ; P- a e <0.0001). e ea a e a a e 100 V 1.45 e e e a 120 V c (230.52 26.83 . 333.96 35.68 e ec e ; P- a e <0.0001) (Tab e 2). e ea SNR a 1.2 e g e 100 V a 120 V (39.97 7.33 . 29.08 3.04 e ec e ; P<0.001). e ea CNR a 1.2 e g e a 120 V (29.11 4.65 . 23.98 1.96 e ec e ; P<0.0001) a (Tab e 2).

e b ec e age a be ee c (120 V c a d 100 V c) b 2 ad g . I b ec e age a a e e a a e e age g a e a d a fac a a ca g ca ad g I e age g a e ad g II. e d e e c e b e g b ad g 1 a d 2 a e. I age g a e (3.93 0.26 . 3.60 0.51 e ec e , =0.034), f e e a e (3.67 0.49 . 3.53 0.64 e ec e , =0.622), f ea a fac (3.47 0.52 . 2.93 0.59 e ec e ,

Citation: Sharma BR (2014) Hybrid Iterative Reconstruction Algorithm Improves Image Quality and Helps to Decrease Radiation Dose in 256-Slides Craniocervical CTA. OMICS J Radiol 3: 171. doi:

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