표 1. 소아 핵심질문3 근거표

핵심질문 3

문헌정보	연구유형	대상자수	문헌 질 KCIG
Polito C, La Manna A, Signoriello G,Marte A. Recurrent abdominal pain inchildhood urolithiasis. Pediatrics. 2009; 124(6):e1088-1094.	Observational study	100	4
Persaud AC, Stevenson MD, McMahon DR, Christopher NC. Pediatric urolithiasis: clinical predictors in the emergency department. Pediatrics. 2009; 124(3):888-894.	Review	339	5
Strouse PJ, Bates DG, Bloom DA, Goodsitt MM. Non-contrast thinsection helical CT of urinary tract calculi in children. Pediatr Radiol. 2002; 32(5):326-332.	Observational study	113	5
Alpay H, Ozen A, Gokce I, Biyikli N. Clinical and metabolic features of urolithiasis and microlithiasis in children. Pediatr Nephrol. 2009;24(11):2203-2209. Corsi M, Seibyl JP, Zubal IG. Effect of injection time on postictal SPET perfusion changes in medically refractory epilepsy. Eur J Nucl Med 1999; 26(8):830-836.	Observational study	162	5
Cochat P, Pichault V, Bacchetta J, et al. Nephrolithiasis related to inborn metabolic diseases. Pediatr Nephrol. 2010; 25(3):415-424.	Review	N/A	5
Levine JA, Neitlich J, Verga M, Dalrymple N, Smith RC. Ureteral calculi in patients with flank pain: correlation of plain radiography with unenhanced helical CT. Radiology 1997; 204(1):27-31.	Observational study	178	2
Oner S, Oto A, Tekgul S, et al. Comparison of spiral CT and US in the evaluation of pediatric urolithiasis. Jbr-Btr. 2004; 87(5):219-223.	Observational study	29	4
Palmer JS, Donaher ER, O'Riordan MA, Dell KM. Diagnosis of pediatric urolithiasis: role of ultrasound and computerized tomography. J Urol. 2005; 174(4 Pt 1):1413-1416.	Observational study	75	4
O'Connor OJ, McSweeney SE, Maher MM. Imaging of hematuria. Radiol Clin North Am. 2008; 46(1):113-132, vii.	Review	N/A	5
Potretzke AM, Monga M. Imaging modalities for urolithiasis: impact on management. Curr Opin Urol. 2008; 18(2):199-204.	Review	N/A	5
Fielding JR, Steele G, Fox LA, Heller H, Loughlin KR. Spiral computerized tomography in the evaluation of acute flank pain: a replacement for excretory urography. J Urol. 1997;157(6):2071- 2073.	Observational study	89	4
Niemann T, Kollmann T, Bongartz G. Diagnostic performance of low-dose CT for the detection of urolithiasis: a meta-analysis. AJR Am J Roentgenol. 2008;191(2):396-401.	Meta-analysis	1,061	2
Poletti PA, Platon A, Rutschmann OT, Schmidlin FR, Iselin CE, Becker CD. Low-dose versus standard-dose CT	Observational study	125	2

protocol in patients with clinically suspected renal colic. AJR Am J Roentgenol. 2007;188(4):927-933.			
Smith RC, Verga M, McCarthy S, Rosenfield AT. Diagnosis of acute flank pain: value of unenhanced helical CT. AJR Am J Roentgenol. 1996;166(1):97-101.	Observational study	210	2
Karmazyn B, Frush DP, Applegate KE, Maxfield C, Cohen MD, Jones RP. CT with a computer-simulated dose reduction technique for detection of pediatric nephroureterolithiasis: comparison of standard and reduced radiation doses. AJR. 2009; 192(1):143-149.	Observational study	45	1
Kulkarni NM, Uppot RN, Eisner BH, Sahani DV. Radiation Dose Reduction at Multidetector CT with Adaptive Statistical Iterative Reconstruction for Evaluation of Urolithiasis: How Low Can We Go? Radiology. 2012; 265(1):158-166.	Observational study	25	4
Dunmire B, Harper JD, Cunitz BW, et al. Use of the Acoustic Shadow Width to Determine Kidney Stone Size with Ultrasound. J Urol. 2016;195(1):171- 177.	Observational study	45 kidney stones	2
Lee JY, Kim SH, Cho JY, Han D. Color and power Doppler twinkling artifacts from urinary stones: clinical observations and phantom studies. AJR. 2001; 176(6):1441-1445.	Observational study	32	4
Turrin A, Minola P, Costa F, Cerati L, Andrulli S, Trinchieri A. Diagnostic value of colour Doppler twinkling artefact in sites negative for stones on B mode renal sonography. Urol Res. 2007; 35(6):313-317.	Observational study	67	4
Shabana W, Bude RO, Rubin JM. Comparison between color Doppler twinkling artifact and acoustic shadowing for renal calculus detection: an in vitro study. Ultrasound Med Biol. 2009; 35(2):339-350.	Review	7	5
Dillman JR, Kappil M, Weadock WJ, et al. Sonographic twinkling artifact for renal calculus detection: correlation with CT. Radiology. 2011; 259(3):911-916.	Observational study	1,828 US report	4
Masch WR, Cohan RH, Ellis JH, Dillman JR, Rubin JM, Davenport MS. Clinical Effectiveness of Prospectively Reported Sonographic Twinkling Artifact for the Diagnosis of Renal Calculus in Patients Without Known Urolithiasis. AJR Am J Roentgenol. 2016;206(2):326-331.	Observational study	85	2
Johnson EK, Faerber GJ, Roberts WW, et al. Are stone protocol computed tomography scans mandatory for children with suspected urinary calculi? Urology. 2011; 78(3):662-666.	Observational study	42	5
McAleer IM, Kaplan GW. Pediatric genitourinary trauma. Urol Clin North Am. 1995; 22(1):177-188.	Review	N/A	5
Stalker HP, Kaufman RA, Stedje K. The significance of hematuria in children after blunt abdominal trauma. AJR. 1990; 154(3):569-571.	Review	N/A	5

Brown SL, Haas C, Dinchman KH, Elder JS, Spirnak JP. Radiologic evaluation of pediatric blunt renal trauma in patients with microscopic hematuria. World J Surg. 2001; 25(12):1557-1560.	Review	1,200	5
Chopra P, St-Vil D, Yazbeck S. Blunt renal trauma-blessing in disguise? J Pediatr Surg. 2002; 37(5):779-782.	Review	103	5
Levy JB, Baskin LS, Ewalt DH, et al. Nonoperative management of blunt pediatric major renal trauma. Urology. 1993; 42(4):418-424.	Review	61	5
Morey AF, Bruce JE, McAninch JW. Efficacy of radiographic imaging in pediatric blunt renal trauma. J Urol. 1996; 156(6):2014-2018.	Review	180	5
Nguyen MM, Das S. Pediatric renal trauma. Urology. 2002; 59(5):762- 766; discussion 766-767.	Review	61	5
Santucci RA, Langenburg SE, Zachareas MJ. Traumatic hematuria in children can be evaluated as in adults. J Urol. 2004; 171(2 Pt 1):822-825.	Review	720	5
Nance ML, Lutz N, Carr MC, Canning DA, Stafford PW. Blunt renal injuries in children can be managed nonoperatively: outcome in a consecutive series of patients. J Trauma. 2004; 57(3):474-478; discussion 478.	Review	101	5
Taylor GA, Eichelberger MR, Potter BM. Hematuria. A marker of abdominal injury in children after blunt trauma. Ann Surg. 1988; 208(6):688-693.	Review	378	5
Perez-Brayfield MR, Gatti JM, Smith EA, et al. Blunt traumatic hematuria in children. Is a simplified algorithm justified? J Urol. 2002; 167(6):2543- 2546; discussion 2546-2547.	Review	110	5
Abou-Jaoude WA, Sugarman JM, Fallat ME, Casale AJ. Indicators of genitourinary tract injury or anomaly in cases of pediatric blunt trauma. J Pediatr Surg. 1996; 31(1):86-89; discussion 90.	Observational study	100	5
Thorp AW, Young TP, Brown L. Test characteristics of urinalysis to predict urologic injury in children. West J Emerg Med. 2011;12(2):168-172.	Observational study	502	4