

in 2006 to 67/100,000 in 2014 ($p<0.001$). The largest increase in ED visits was a 28% increase in prevalence among the 45–64 years age group from 91/100,000 to 116/100,000 (27%, $p<0.001$). Men were responsible for 78% of the ED visits in both 2006 and 2014.

Age in years	Total number of ED visits in 2006	Prevalence of ED visits/100,000 population in 2006	Total number of ED visits in 2014	Prevalence of ED visits/100,000 population in 2014
18–44	49 265	44	55 216	48
45–64	68 544	91	97 081	116
65–84	44 358	137	53 206	133
85+	6242	128	8126	132
All ages	2 05 905	56.5	2 13 780	67

Conclusions: Emergency Department visits have increased dramatically in the US over the last 9 years, and this increase is mostly in the 45–64 years age group perhaps reflecting the undermanaged burden of uncontrolled gout. Education, improved recognition and long-term management as well as increased use of preventive strategies is needed.

REFERENCES:

- [1] Lawrence RC, et al. Estimates of the prevalence of arthritis and other rheumatic conditions in the United States. Part II. *Arthritis Rheum* 2008;58(1):26–35.
- [2] Kuo CF, et al. Global epidemiology of gout: Prevalence, incidence and risk factors. *Nat Rev Rheumatol* 2015;11(11):649–62.

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OP0186

NEPHROLITHIASIS AS A COMPLICATION OF GOUT: A CROSS-SECTIONAL STUDY WITH HELICAL COMPUTED TOMOGRAPHY

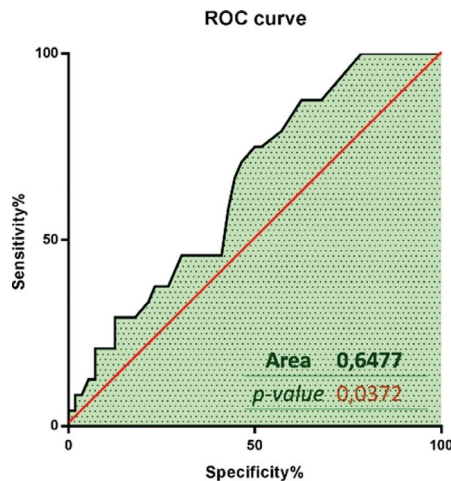
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Background: Gout is the most prevalent inflammatory arthritis, secondary to persistent hyperuricemia. It has been associated with development and progression of cardiometabolic diseases and chronic kidney disease. Several studies have shown a relationship between hyperuricemia and history of nephrolithiasis, although cut-off levels for uric acid and other related risk factors are still not well established.

Objectives: To determine the frequency of nephrolithiasis (NL) detected by helical computed tomography (h-CT) and its associated risk factors in patients with gout in a tertiary hospital of São Paulo, Brazil.

Methods: This cross-sectional study, conducted from 2016 to 2017, included 80 patients with a diagnosis of gout, according to the criteria of the ACR/EULAR-2015. They were questioned about the previous history of NL and submitted to h-CT for NL. Two groups were established: with and without NL; and later, unilateral and bilateral lithiasis. Anthropometric data, disease duration, serum uric acid (UA), creatinine, urinary pH (pH) and urinary UA of groups were compared. Statistical analysis included: mean, standard deviation, relative percentages, t-student test, chi-square test and ROC curve. Comparison of time to event-rate was performed by Kaplan-Meier method with log rank test. $p<0.05$ was considered statistically significant.

Results: NL was confirmed by h-CT in 30% of patients. However, only 16% reported previous history of NL. Groups with NL and without NL were similar in mean age ($65,96\pm 5,54$ and $68,89\pm 9,58$ years, $p=0.147$), disease duration ($16,63\pm 11,49$ and $11,77\pm 9,74$ years, $p=0.056$) and BMI ($29,72\pm 5,09$ and $28,82\pm 5,08$, $p=0.470$). The NL group had higher pre-treatment UA compared with patients without NL ($9,36\pm 1,09$ and $8,80\pm 1,08$ mg/dL, $p<0.05$) and the most acidic pH ($5,26\pm 0,42$ and $5,74\pm 0,62$, $p<0.05$). In addition, patients with bilateral NL presented higher BMI than unilateral patients ($p=0.036$). According to ROC curve analysis, the best cutoff value for pre-treatment UA was 8.5 mg/dL, yielding sensitivity and specificity of 75% and 50%, respectively, for predicting NL events in this study. Kaplan-Meier analysis showed that after 20 years of disease, 55% of patients with pre-treatment AU ≥ 8.5 mg/dL had NL, while only 18% of patients with pre-treatment AU < 8.5 mg/dL.



AU $\geq 8,5$ mg/dL

Sensitivity	75%	95% IC: 53% - 90%
Specificity	50%	95% IC: 36% - 64%

Without NL With NL

AU $< 8,5$ mg/dL	27	6 (18%)
AU $\geq 8,5$ mg/dL	29	18 (38%)

Conclusions: Since prevalence of NL in gout patients cannot be determined reliably from the clinical history, an active screening test for NL should be performed in these patients. Our study suggests that urine acidification and UA ≥ 8.5 mg/dL are associated with an increased risk of NL during follow-up of gout patients and should be corrected in their treatment.

REFERENCES:

- [1] Shimizu T, et al. The prevalence of nephrolithiasis in patients with primary gout: a cross-sectional study using helical computed tomography. *J Rheumatol* 2009 Sep;36(9):1958–62. doi:10.3899/jrheum.081128 (Epub: 2009 Jul 15).
- [2] Wan KS, et al. Nephrolithiasis among male patients with newly diagnosed gout. *Hong Kong Med J* 2016 Dec;22(6):534–7. (Epub: 2016 Sep 9).
- [3] Shimizu T, et al. Novel evaluation of nephrolithiasis as a complication of gout: a cross-sectional study using helical computerized tomography. *J Urol* 2013 May;189(5):1747–52. doi:10.1016/j.juro.2012.11.076 (Epub: 2012 Nov 15).
- [4] Kramer HJ, et al. The association between gout and nephrolithiasis in men: The health professionals follow-up study. *Kidney Int* 2003 Sep;64(3):1022–6.

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FRUCTOSE-CONTAINING BEVERAGES IS AN INDEPENDENT RISK FACTOR FOR GOUT EARLY-ONSET IN SOUTH CHINA

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Background: A trend of earlier onset of gout has been reported even though its incidence increases in a linear fashion with age until 70 years. Dietary factors have been supposed to be contributed to the early onset of gout.

Objectives: To investigate diet characteristics of gout and their impact on the early onset of gout.

Methods: Consecutive gout patients who fulfilled the 2016 ACR/EULAR classification criteria were recruited between Dec 2016 and Dec 2017. A cross-section survey on dietary factors before gout onset was conducted with semi-quantitative diet questionnaire. The questionnaire included alcohol, fructose-containing beverages, soup, animal organs, sea-foods, hotpot, tea and coffee, which impact on