

## Abstrak

### HUBUNGAN ASUPAN OKSALAT, KALSIUM DAN AIR PUTIH DENGAN UKURAN BATU GINJAL DI RUANG BEDAH UROLOGI RSUD PROF. DR. MARGONO SOEKARJO PURWOKERTO

**Latar Belakang:** Penyakit batu ginjal merupakan penyakit yang disebabkan oleh adanya sedimen urin dalam ginjal. Ada banyak faktor yang menyebabkan batu ginjal. Faktor diet merupakan faktor yang terpenting dalam proses terbentuknya batu ginjal seperti kebiasaan konsumsi air putih, makanan tinggi oksalat dan tinggi kalsium. Penelitian ini bertujuan untuk mengetahui hubungan antara asupan oksalat, kalsium dan air putih dengan ukuran batu ginjal.

**Metode:** Penelitian ini merupakan penelitian *cross-sectional*. Jumlah responden 73 orang dengan rentang usia 28-74 tahun, yang dipilih menggunakan teknik *purposive sampling*. Instrumen penelitian yang digunakan yaitu formulir karakteristik responden, aplikasi *Nutrisurvey*, *oxalate food list*, rekam medis, kuesioner SQ-FFQ untuk menilai asupan oksalat, kalsium dan air putih. Analisis menggunakan *Rank Spearman*.

**Hasil:** Responden dengan jenis kelamin laki-laki (64,4%), rentang usia antara 30-60 tahun (71,3%), pendidikan sekolah dasar (45,2%), memiliki riwayat kekambuhan menderita batu ginjal (52,1%), tidak memiliki riwayat keluarga menderita batu ginjal (68%), riwayat penyakit hipertensi dan sindrom metabolik (32,9%), diagnosis batu *renal dextra sinistra* sebesar (32,9%), asupan oksalat tinggi (95,9%), asupan kalsium rendah (98,6%), asupan air putih rendah (97,3%). Ada hubungan antara asupan oksalat ( $p=0,047$ ;  $r=0,233$ ) dengan ukuran batu ginjal. Ada hubungan antara asupan air putih ( $p=0,007$ ;  $r= -0,312$ ) dengan ukuran batu ginjal. Tidak terdapat hubungan antara asupan kalsium ( $p=0,053$ ;  $r= -0,228$ ) dengan ukuran batu ginjal.

**Kesimpulan:** Ada hubungan antara asupan oksalat dan asupan air putih dengan ukuran batu ginjal. Tidak terdapat hubungan antara asupan kalsium dengan ukuran batu ginjal

**Kata Kunci:** Oksalat, Kalsium, Ukuran Batu Ginjal

## Abstract

### THE RELATIONSHIP OF OXALATE, CALCIUM AND WATER INTAKE WITH KIDNEY STONE SIZE IN THE UROLOGY SURGERY ROOM OF PROF. DR. MARGONO SOEKARJO PURWOKERTO

**Background:** Kidney stone diseases caused by the presence of urine sediment in the kidney. There are many factors that caused kidney stone. Diet is the most important factor in the process of forming kidney stone, such as the habit of consuming water, food high in oxalate and high in calcium. This study aims to determine the relationship between intake of oxalate, calcium and water and the size of kidney stone.

**Method:** This research was cross-sectional study. Total sample was 73 respondents with an age range of 28-74 years, selected used purposive sampling technique. The research instruments used were respondent characteristics form, Nutrisurvey application, oxalate food list, medical records, SQ-FFQ questionnaire to assess intake of oxalate, calcium and water. Analysis uses Spearman Rank.

**Results:** Respondents were male (64.4%), age range between 30-60 years (71.3%), elementary school education (45.2%), history of recurrence of kidney stone (52.1 %), no family history of kidney stone (68%), history of hypertension and metabolic syndrome (32.9%), diagnosis of left right kidney stone (32.9%), high oxalate intake (95.9%), low calcium intake (98.6%), low water intake (97.3%). There was a relationship between oxalate intake ( $p=0.047$ ;  $r=0.233$ ) and kidney stone size. There is a relationship between water intake ( $p=0.007$ ;  $r= -0.312$ ) and the size of kidney stones. There was no relationship between calcium intake ( $p=0.053$ ;  $r=-0.228$ ) and kidney stone size.

**Conclusion:** There is a correlation between oxalate intake and water intake and the size of kidney stones. There is no correlation between calcium intake and the size of kidney stone.

**Keywords:** Oxalate, Calcium, Kidney Stone Size