

# Vitamin D3 25 (OH) Levels In Gouty Patients - A Pilot Study

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## RESULTS

Included in the study were charts of 19 Females and 41 Males; aged 49,08 (25-80) years. Patients were divided into two groups: Group A: gout patients, Group B: control: patients with RA, AS, PsA. and SLE. Each group consists of 30 patients. There was no statistically significant difference in the demographics of the 2 groups except that there were more women in the control group B versus the gout group (A) (p=0.005).

Table 1: Demographics - Age/Sex

Group	Sex	Female (years)	Male (years)	Female+Male (years)
Gout		N <sub>e</sub> =4 (53-80) $\bar{x}$ =66	N <sub>e</sub> =26(26-58) $\bar{x}$ =46,23	N <sub>e</sub> =30 (26-80) $\bar{x}$ =48,87
Control		N <sub>e</sub> =15 (27-74) $\bar{x}$ =53,27	N <sub>e</sub> =15 (25-66) $\bar{x}$ =45,33	N <sub>e</sub> =30 (25-74) $\bar{x}$ =49,3
Total		N <sub>e</sub> =19 (27-80) $\bar{x}$ =55,95	N <sub>e</sub> =41 (25-66) $\bar{x}$ =45,9	N <sub>e</sub> =60 (25-80) $\bar{x}$ =49.08

Table 2: BMI status

Group	BMI	Normal (%)	Overweight (%)	Obesity (%)
Gout		26,7	33,3	40
Control		33,3	40	26,7

Table 3: Comorbidities / Metabolic Syndrome manifestations

Disease	Hyper tension (%)	Dys Lipidemia (%)	Hyper glycemia (%)	DM2 (%)	IHD (%)	Without comorbidities (%)
Gout	36,7	90	16,7	13,3	16,7	16,7
Control	16,7	73,3	23,3	3,3	6,7	23,3

Table 4: Laboratory tests

Lab.test	SUA mg/dl	Vit.D3 ng/ml	Cretinine ml/min	Number of pts with reduced GFR <60ml/min
Gout	4,1 - 9,9 $\bar{x}$ =7,5	8,3-32 $\bar{x}$ =17,86	0,64-2,0 $\bar{x}$ =1,104	7
Control	4,2-5,9 $\bar{x}$ =5,4	9-32 $\bar{x}$ =21,14	0,65-1,26 $\bar{x}$ =0,944	0

## CONCLUSIONS

Data is limited regarding vitamin D3 25 (OH) levels in gout patients. In this study the lower vitamin D3 levels were found in gouty patients and the higher but still deficient levels in the control group.

**Our study suggested a possible association between SUA and vitamin D3 25(OH).**

Future randomized controlled trials are needed to evaluate the effect of low vitamin D3 25(OH) levels on the purine metabolism and the metabolic syndrome and whether supplementation of Vitamin D3 should be used as an adjuvant treatment in the management of gout.

## REFERENCES

- 1. <http://www.ncbi.nlm.nih.gov/pubmed/9598031>
- 2. <http://link.springer.com/article/10.1007%2Fs00296-014-3167-z>
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## BACKGROUND

**Vitamin D deficiency** is a major public-health issue worldwide. On the other hand, **gout** is the most often type of arthritis in the world, not only in men.

Association between vitamin D deficiency and elevated serum uric acid (SUA) is questioned.

## OBJECTIVES

**To assess vitamin D3 levels in gouty patients including features of associated metabolic syndrome.**

## METHODS

A **retrospective chart review** of 60 outpatient Rheumatology clinic patients was performed between 1 January 2013 and 31 December 2013.

**We reviewed:**

body mass index (BMI), blood pressure, history of ischemic heart disease (IHD), hyperglycemia/, diabetes mellitus (DM)-2 and dyslipidemia.

**Reviewed blood work included:**

Serum uric acid (SUA), vitamin (Vit.) D3 25(OH), serum creatinine, glomerular filtration rate (GFR), glucose and lipid profile