



View Point

The “Thumb Rule” in Radiographic Imagery: Promotion of Water Intake for Preventing Renal Stones and Cardiac Events

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INTRODUCTION

As compared to text-only warnings, recall of pictures is far superior and makes them more likely to be noticed and remembered by people.¹ Therefore, pictorial communication is a powerful tool in preventive healthcare, especially in encouraging behavioral change. Taking a cue from effective pictorial warnings on tobacco packaging, this article introduces a striking radiographic image that metaphorically illustrates the consequences of chronic dehydration.

CLINICAL PRESENTATION

A 52-year-old male farmer presented with persistent right flank pain, increased frequency of urination, and intermittent hematuria for the past one month. An abdominal radiograph [Figure 1] revealed



Figure 1: An abdominal radiograph shows a large staghorn calculus in the right renal pelvis. The silhouette resembles a clenched right hand with thumb extended. In addition, there are multiple small calculi in the lower part of kidney, possibly suggesting a hydronephrotic enlarged kidney.

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multiple small calculi in the lower part of the right kidney. In addition, there was a large staghorn calculus prominently occupying the right renal pelvis. Notably, its silhouette resembled a clenched right hand with thumb extended upward – an image that inspired the “Right Hand Thumb Rule.”

DISCUSSION

Hydration is a cornerstone of renal and cardiovascular health,²⁻⁴ yet its significance is often overlooked in daily habits. While “hydration” is a commonly used term in preventive medicine, it includes all fluid types, such as sweetened, caffeinated, or electrolyte-based beverages. Some of these may not always align with healthy habits. In contrast, “water intake” refers specifically to the consumption of plain water. It offers a more precise term when emphasis is on behavioral change. Hence, the use of “water intake” may be preferable for promoting healthy hydration practices.

Despite widely available guidelines, many individuals, especially in hot and arid climates, fall short of their daily water recommendations and often substitute with sweetened or caffeinated drinks, leading to chronic dehydration. This in turn contributes to increased incidence of nephrolithiasis, hypertension, and cardiovascular morbidity.³⁻⁵

The radiograph featuring a staghorn calculus resembling a clenched right hand with an extended thumb offers a striking visual metaphor. This image inspired the “Thumb Rule,” which encourages healthy adults to have 2.5–3.5 L of daily water intake,⁵ aligning with global recommendations and making the case for its inclusion in public health interventions. European and American urological associations encourage maintaining a fluid intake sufficient to produce 2–2.5 L of urine/day to reduce the risk of stone formation.⁵

SUGGESTED PUBLIC CAMPAIGN CAPTION

“Thumbs up for water, clean, and clear – your kidneys and heart both cheer!”

PRACTICAL APPLICATIONS

This radiographic image and its accompanying tagline can be adapted for diverse Information, Education, and Communication formats, including:

- Public awareness posters and digital banners
- Preventive outreach programs in schools, markets, and

railway/bus transit hubs

- Short video announcements and local radio campaigns.

These can be customized so as to target high-risk groups, such as farmers, office workers, middle-aged adults, and those residing in arid climates prone to dehydration.

There is a potential to integrate the campaign with national public health programs, such as the Swasth Bharat Abhiyan, Ayushman Bharat, or Nutrition Missions, to amplify its reach and impact. The effectiveness of the campaign can be assessed through hydration surveys, social engagement data, such as click-through rates, and feedback from key target groups.

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