

Top 10 differential diagnoses in family medicine: Edema

David Ponka MD Michael Kirlew MD

10. EDEMA

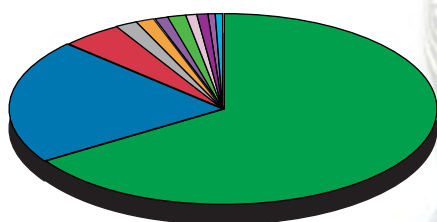
The most logical approach to the diagnosis of edema is of course to first think whether it is localized or generalized, then whether or not it is pitting.

LOCALIZED EDEMA

Most commonly involving one or both lower limb, the most common causes are:

- venous insufficiency;
- immobility or trauma;
- cellulitis;
- ruptured Baker's cyst;
- thrombophlebitis; and
- DVT.

Lymphedema (from lymphatic obstruction) is rarer, and classically produces non-pitting edema, as opposed to most other causes which rely on transuded fluid from the venous system (whether because of oncotic factors, i.e. low albumin, or because of high venous pressure, e.g. CHF or abdominal compression), and thus cause pitting. Obesity can of course mimic edema, and this is called pseudoedema. Pregnancy or an abdominal mass can compress the inferior vena cava, leading to bilateral lower limb edema. In the tropics, the differential is much broader and would include the filariases (e.g. elephantiasis).



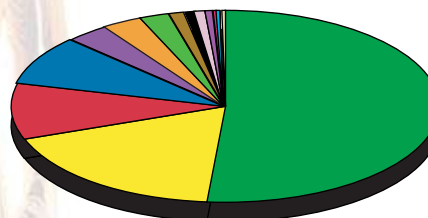
Under 45

GENERALIZED EDEMA (SYSTEMIC DISEASE)

One must always consider:

- CHF;
- renal insufficiency;
- cirrhosis;
- malnutrition or protein-losing enteropathy;
- drugs (calcium channel blockers, NSAIDs);
- myxedema; and
- premenstrual syndrome.

Ddx



45 and Over

	AGE	
	Under 45	45 and Over
Edema NYD	65.80 %	51.40 %
CHF	0.00	18.10
Venous Insufficiency	4.70	9.30
Thrombophlebitis	1.20	3.20
HTN	1.50	3.00
Medication Side Effect	1.20	2.30
Ischemic Heart Disease	0.00	1.10
PVD	0.00	0.90
Infection	0.90	0.80
Atrial Fibrillation	0.00	0.40
Arthritis	0.60	0.50
Renal Disease	0.90	0.10
GI Malignancy	0.30	0.20
Pregnancy	1.60	0.00
Cirrhosis	0.00	0.03
Other	21.20	8.50

CHF—congestive heart failure; DVT—deep vein thrombosis; GI—gastrointestinal; HTN—hypertension; NSAIDs—nonsteroidal anti-inflammatory drugs; NYD—not yet diagnosed; PVD—peripheral vascular disease.

For a pdf of the Top Ten Differential Diagnoses in Family Medicine pamphlet or to access the slide show on-line, go to <http://www.familymedicine.uottawa.ca/eng/TopTenDifferentialDiagnosisInPrimaryCare.aspx>.

Dr Ponka is an Assistant Professor and Dr Kirlew is a second-year resident in the Department of Family Medicine at the University of Ottawa in Ontario.

Correspondence to: Dr David Ponka, Assistant Professor, Department of Family Medicine, University of Ottawa; e-mail dponka@uottawa.ca