

Use of a computerised system to facilitate evaluation of anti-neutrophil cytoplasm (ANCA associated) vasculitis and other forms of systemic vasculitis

Raashid Luqmani, Lorraine O'Neill, Joel David

We have developed a bespoke computer software program to routinely record disease evaluations such as the Birmingham Vasculitis Activity Score (BVAS) to measure baseline status and progress and document current therapy.

We reviewed 729 encounters from 449 patients with vasculitis (men age 57.3 range 17-94, 39% males) from January 2016 to October 2016. Oral steroids was initiated during 25 encounters, stopped in 10, continued in 80, increased in 26 and reduced in 315 encounters. Oral methotrexate (MTX) was started in 38, stopped in 23, continued in 86, increased in 14 and reduced in 20 encounters. In 38 encounters, subcutaneous MTX was initiated, continued or adjusted; in 3 it was stopped. MTX was mainly used for large vessel vasculitis. Cyclophosphamide pulses were started in 12, continued in 22, and stopped in 4. Its main use was in ANCA associated and other necrotizing vasculitides. Rituximab was commenced in 7 and continued in 31, all for ANCA associated vasculitis. Azathioprine was initiated in 7, stopped in 8, continued in 36, increased in 1 and reduced in 14. Mycophenolate mofetil was started on 8 occasions, stopped in 10, continued in 24, increased on 5 and reduced in 8. Leflunomide started in 10, stopped in 6, continued in 20 encounters, mainly for GCA but also GPA. We performed 313 BVAS assessments (see Table 1) in 255 patients, of whom 64.5% were in remission (BVAS = 0). For 111 assessments, BVAS scores ranged from 1-22 (median 3). The highest value (22) was from a new patient with large vessel vasculitis. However, median scores were lower in patients with large vessel vasculitis compared to medium vessel or small vessel vasculitis.

A computerised system facilitated accurate capture of data for patients with vasculitis during routine clinical practice, providing a useful summary of their disease status and treatment profile. We use this data for clinical care, to benchmark against other departments, to explore long term outcomes in vasculitis as well as providing a means to accurately identify patients who might be eligible for clinical trials and studies.

Table 1 Disease activity per diagnosis of vasculitis

Diagnosis	N (encounters)	Encounters with BVAS=0 in remission	BVAS Median if not in remission	BVAS range if not in remission
Whole group	313	202	3	1-22
Large vessel vasculitis				
GCA	82	61	1	1-6
Other forms of GCA incl isolated large vessel vasculitis	56	38	1	1-22
Takayasu arteritis	6	3	4	2-5
Medium vessel vasculitis				
PAN	2	0	-	-
Small vessel vasculitis				
GPA	73	42	4	1-15
MPA	4	4	-	-
EGPA	21	10	5	1-18
Cryoglobulinaemic vasculitis	5	2	4	3-6
Cutaneous vasculitis				
Purpuric vasculitis	2	2	-	
Other types of vasculitis				
Behcet's	13	4	4	1-9
Rheumatoid vasculitis	2	2	-	-
Other forms of vasculitis	49	33	6	2-11