**Vasculitis in Renal Medicine – SHO Teaching Part 2**

**Why is this diagnosis important?**

Time is of the essence! If the cause of the kidney injury can be attributed to vasculitis, then early treatment can halt or even reverse the disease, preventing end stage renal failure or death.

**How frequently would you see a rash? What are the characteristics of the rash?**

Data suggests that only about 4% of the primary systemic vasculitides (granulomatosis with polyangiitis, polyarteritis nodosa, microscopic polyangiitis, and eosinophilic granulomatosis with polyangiitis) have skin manifestations.

The cutaneous manifestations of vasculitis include petechiae, palpable purpura, nodules and ulcers. It most commonly occurs in a symmetrical distribution on the lower legs, dependent areas, or on areas of constrictive clothing due to increased hydrostatic pressure in these sites. The skin lesions are often asymptomatic, but may be associated with pruritus, burning sensations, or pain.

Some interesting facts:

- Biopsies of lesions of cutaneous vasculitis should be taken from a lesion that is 24 to 48 hours old.
- Histopathologic features of vasculitis include fibrinoid necrosis and an inflammatory infiltrate invading or damaging the vessel wall.
- Timing of the development of vasculitis can be helpful; drug-induced vasculitis most often occurs 7 to 10 days after the introduction of the inciting medication.

**When admitted with AKI, when to think of/ request a vasculitic screen?**

Vasculitic screen is not indicated in every patient with AKI; it is unnecessary, costly and will add to the workload of already stretched laboratories. The history, as always, is crucial and may give away the diagnosis. Furthermore, without a clear clinical context, a mildly raised antibody titre can confuse the diagnosis.

Consider requesting a vasculitic screen if:

- The history is not suggestive of a clear cause for the renal failure
- The renal function is not improving in 72 hrs despite stopping nephrotoxins and optimum fluid balance.
- The renal function is rapidly deteriorating
The urine dip is positive for blood and protein
They have symptoms suggestive of a vasculitis – kidney and lung involvement, rash, ENT symptoms

**Top Tip**

When referring to the Renal Team expect to be asked the following: rough time duration of symptoms or presumed timeframe over which the renal function deteriorated, current fluid status, urine output, blood pressure and oxygen saturation, urine dipstick and blood tests especially Potassium, bicarbonate, albumin. An abdominal ultrasound is handy especially kidney sizes.

If a patient with known vasculitis presents to the department unwell, how do I know if this is a relapse or something new?

This is a tough one! It again goes back to the basics. It’s important here, to establish what their initial symptoms were when the diagnosis was made. Ask and examine to see if you could elicit the same symptoms and signs. Bloods tests including CRP and ESR are non specific when it comes to differentiating between the two, but if you have recent blood tests to compare to, they might be useful.

For instance, if a patient with known vasculitis presents to your department with general malaise and lethargy and a CRP of 200, it can get difficult to establish if this is a flare up or a new infection. What is important here is to see if the patient has any symptoms suggestive of a focus of infection or was this similar to when the diagnosis of this condition was made. It is also important is to check if the patient is compliant with their medications and if any change has been made recently. Now in this case, with a raised CRP, it’s important to do a septic screen and monitor the obs. If behaving like sepsis, then give antibiotics. Change in ANCA titres may also help differentiate between a vasculitis flare and infection.

If septic should I hold the immunosuppression? If nil by mouth should I prescribe IV immunosuppression?

If you are convinced its sepsis, you could hold the immunosuppressant till a senior reviews the patient. HOWEVER, NEVER STOP STEROIDS SUDDENLY.

If nil by mouth, discuss with the renal team and they will advice you depending on how far into treatment the patient is, and what immunosuppressants they are on.
What are the acute emergency presentations of vasculitis to be aware of/ what are the serious complications?

Remember it may not be anything to do with their vasculitis; vasculitis patients also suffer from Myocardial Infarction, Strokes, GI bleeds etc just like the rest of the population.

Renal / pulmonary syndrome – pulmonary haemorrhage needs urgent treatment and is life threatening.

A few things, that you might see a bit more of in these patients:

-Sepsis – especially atypical infections secondary to the immunosuppressants

-Possible side effects of immunosuppressants. Drugs to watch for: azathioprine, cyclophosphamide, methotrexate, rituximab, steroids

-Relapse of the disease: This is a tough one. Often difficult to determine as antibody titres don’t often co-relate with the disease activity.