Hello everyone!!!
The current question seems to have been very tough …Only ***TWO*** people got the right answer!!!

Understandable since there is a lot of things to unpack in the question

Let us go through the question once again. Only the important point are highlighted

39-year-old lady ….. back pain for the last 2 weeks….suddenly when she lifted a bucket...feels better when she lies down or rests….

As we all know back pain is very common among people. 85% of the world population will have back pain at some time or the other in their lifetime. However, the majority of acute back pain is SELF LIMITING. Meaning it resolves even without treatment within 6 weeks. This kind of back pain is due to a strain/ sprain and is identified by the fact that it gets better with rest and worsens with activity. We should NOT get MRI or other investigations in such patients. (contrary to what the physician did in this patient) Acute back pain is generally treated with minimal rest (not more than 48 hours) gentle exercises and pain medications.
What about serious causes of back pain like fracture or metastasis?

Well there are red flag signs which help identify which back pain is serious

1. Back pain less than 20 yrs of age or > 50 yrs of age
2. Pain at night, disturbs sleep
3. Fever
4. Weight loss
5. Patient on Steroids
6. Patient with past cancer
7. Loss of control of the bowel or bladder.
8. Weakness or numbness in a leg or arm.
9. Foot drop, disturbed gait.
10. Saddle anaesthesia (numbness of the anus, perineum or genitals)

Only in these pts is an MRI, X-ray or other tests justified.
Our patient does not have any of these features.

Rheumatological cause of back pain is spondyloarthritis. That disease is more common in men and causes buttock pain as well as pain in the night and improves with exercises and worsens with rest.

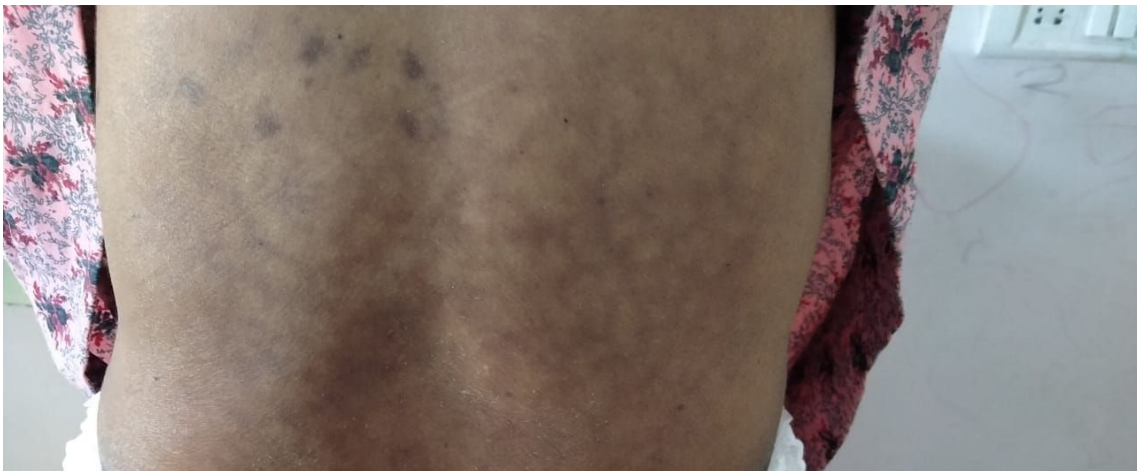
Since the patient's back pain is not a red flag back pain and not a rheumatological issue hence we can come to the conclusion that her rash is not associated with the back pain. I.e. There is not part of the same disease (p.s. Have to hear of Occam's razor and Hickam's dictum. Click on the link to read more about the same).

The patient has an ANA which is positive. However, there is no sense in testing for ANA in a patient with back pain. SLE or CTDs never present with back pain. If you do a test in a patient with a low probability of having the disease then even if the test comes positive you are more likely to have a false positive rather than a true positive. (read more about the same by clicking on the link.) In addition, the report the patient has is positive at 1:80 titre which is very nonspecific and present in many normal individuals. The specificity for the presence of a

disease or true positive increases when a titre above 1:160 is positive. (read more about the same by clicking the link)

So the patient's ANA is a false positive (most probably), she should not have undergone MRI and her rash has nothing to do with her back pain and probably nothing to do with the ANA positivity!!!

Now let us look at the rash and the options provided.

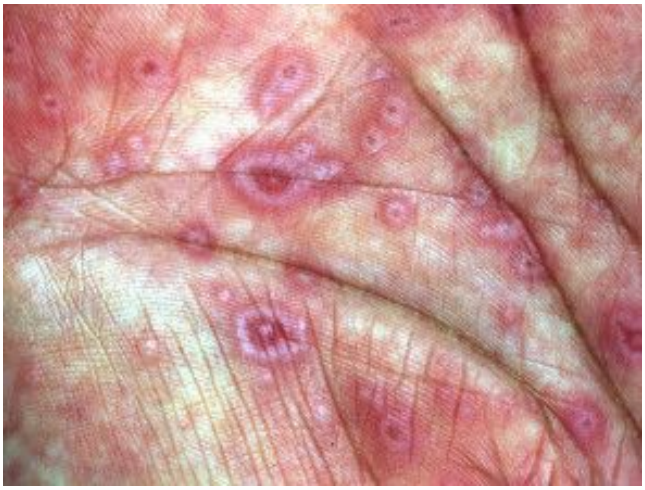


The rash is a reticulated rash (i.e. a rash which appears like a network, a web or a net.)

The options provided are

1) Erythema multiforme
2) Livedo reticularis
3) Livedo racemosa
4) Erythema Ab Igne

Erythema multiforme is a milder version of Steven Johson syndrome which is precipitated by an infection (viral mostly) or sometimes a drug. The lesions are erythematous, raised and have typical target-like appearance. Seem image below. It never occurs as a reticulated rash

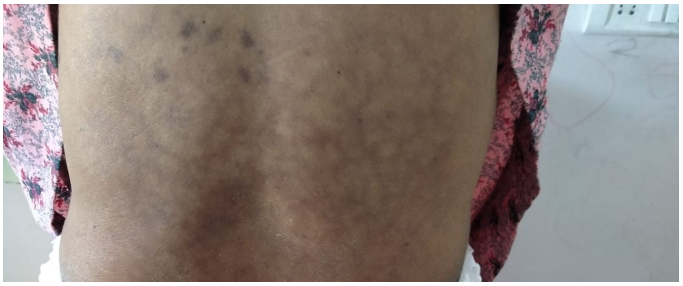


There is a long list of skin conditions causing reticulated rashes. (click on link to learn more). However, it suffices to know that all of the remaining 3 options are reticulated rashes.

The differences between the three are noted below with important differentiating factors highlighted

Condition	**Characteristics**
Livedo reticularis	Violaceous mottled or reticulated patches; **painless**; typically **temperature-sensitive**; **may be physiologic** or secondary to systemic disease; **no hyperpigmentation**. **Tight net-like pattern**. **Symmetrical involves the legs, Varies with temperature change.**
Erythema ab igne	**Erythematous** reticulated patch, with possible secondary changes including **epidermal atrophy and scaling**; chronic exposure may lead to **hyperpigmentation; painless** or associated with a mild burning sensation; **the history of heat exposure.**
Livedo racemosa	**Violaceous** reticulated patch, **larger broken branching pattern**, often with **asymmetric or "broken" net** appearance; typically involves the **trunk and proximal limbs**; generally secondary to **chronic disease**; frequently **painful**; **no hyperpigmentation**.

Let us now look once again at the rash in our patient . It is erythematous, painless, there are areas of hyperpigmentation and she does give history of using hot water bag to the area.



Hence the answer is Erythema ab igne!!!

This was a really tough one.. Was it not?
Did you have fun reading the answer

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