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On-Demand Clinical News

Strategies for Management of Pruritus

Kiran Hamid, RPh

Pruritus at end of life can be caused by various disease states. These include chronic renal disease, cholestasis associated with liver disease, opioid induced itch, itch due to solid tumors, itch caused by hematological malignancy (mainly Hodgkin's lymphoma), itch associated with HIV, and senile itch. Depending on the origin of the itching, there will be varying treatment options that are appropriate, as outlined below:

Renal Itch

The pathophysiology of pruritus in renal failure is unknown. Dry skin is very common in these patients. There are also elevated levels of inflammatory cytokines, and involvement of the serotonin system. Although there is a higher level of histamine in renal failure patients, there is no correlation between the severity of the itch and the plasma histamine concentration. Standard first and second generation antihistamines are usually not very effective.

Treatment:

- Non –pharmacological: Moisturization with emollients.
- Doxepin 10mg given once-twice daily has been shown to be helpful.
- SSRIs like mirtazapine and paroxetine can be very effective. Their anti-pruritic effect can be achieved as quickly as 24-48 hours.
- For patients on dialysis, the administration of 300 mg of gabapentin after each dialysis has been shown in multiple studies to improve ESRD pruritus.

Liver Itch

Cholestasis induced itching is most commonly associated with primary biliary cirrhosis. The pathophysiology of cholestasis-induced pruritus is not well understood.

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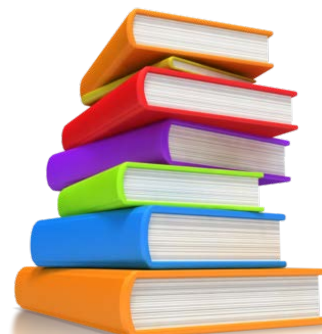

Upcoming Lunch and Learn Presentations

November
"Use of Naloxone in the Hospice Patient"
Presenter: Meri Madison, PharmD, CGP
Tuesday, Nov 8, 2016 at 3:00pm ET;
Wednesday, Nov 9, 2016 at 12:00pm ET

December
"Infection Prevention and Control at Home and in Facilities"
Presenter: Karen Shockley, RN, BSN
Tuesday, Dec 13, 2016 at 3:00pm ET;
Wednesday, Dec 14, 2016 at 12:00pm ET

RSVP by contacting Suzanne Stewart, Lunch and Learn Coordinator, at: 1-800-662-0586 ext. 3303 or sstewart@procarerx.com.

Miss a Lunch and Learn?

Log onto PHC's website, click on "Resources and Education", "Client Resources" and "Lunch and Learn" to listen to audio and view handouts from previous programs (https://phc.procarerx.com/resource/edutools/l-l).

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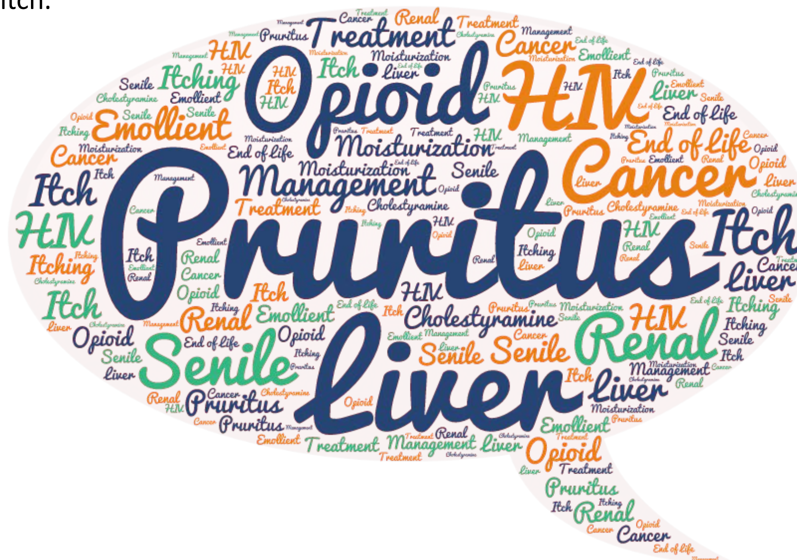
Liver Itch Continued

One hypothesis suggests that the pruritus is caused by the accumulation of bile salts in patients with cholestatic disease. These bile salts accumulate under the skin, causing itch. However, there still exists no established correlation between the bile salt concentration and severity of pruritus. Histamine is not thought to play a role.

Treatment:

- Cholestyramine is still recommended as a first-line therapy for management of pruritus due to cholestatic disease. The dose is typically 4gm po BID mixed in fluid.
- Rifampin is another effective treatment option for cholestatic induced pruritus. It is typically dosed at 150mg po BID. Monitor for signs/symptoms of hepatotoxicity.
- Opioid receptor antagonists such as naloxone or naltrexone are also shown to be effective in the management of cholestatic pruritus. Monitor for opiate withdrawal reaction.
- SSRIs such as paroxetine or mirtazapine can be used.
- Ondansetron can also be tried for cholestatic-induced pruritus, as the serotonin system is thought to play a role in cholestatic-induced itch.



Opioid Itch

Opioid induced pruritus affects only up to 10% of those taking oral opioids, but up to 90-100% of those receiving spinal opioids. Although the mechanism of opioid-induced pruritus is not yet fully understood, both peripheral- and central-acting pathways appear to be involved. Peripherally induced pruritus occurs due to the release of histamine from mast cells, resulting in local itching and hives (this is the itch seen commonly with morphine and methadone). Activation of central mu-opioid receptors is likely to also contribute to a centrally mediated reaction. Serotonin pathways may also be involved in the mechanism of this type of pruritus.

Treatment:

- Consider switching to a different opioid, for instance hydromorphone, which has less histamine-releasing properties. Reducing the dose of the opioid may also be helpful.
- Ondansetron can also be of use, as it can significantly decrease the incidence and intensity after opioid administration, especially with morphine.
- Mirtazapine and paroxetine may also be useful.
- Antihistamines such as diphenhydramine have little if any effect on centrally induced pruritus, but are effective for the peripherally induced pruritus of morphine or methadone.

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Cancer Itch

Pruritus can also occur in cancer with solid tumors. The pathophysiology is not well understood, but appears to involve an immunologic reaction to tumor-specific antigens. Antihistamines are ineffective. Treatment for this type of itch usually includes SSRIs such as paroxetine or mirtazapine. Pruritus associated with hematologic disorders, such as lymphoma, is more common than pruritus associated with solid tumors. Hodgkin's itch can develop weeks and even months before other clinical signs of lymphoma. The itching can be extremely severe and is often felt as a burning sensation occurring on a particular area of skin, frequently on the lower legs.

Treatment:

- Corticosteroids, such as prednisone or dexamethasone often relieve itch in late-stage Hodgkin's lymphoma
- Selective Serotonin Reuptake inhibitors such as mirtazapine 7.5-15mg po at hs can also be effective.
- Cimetidine, an H2-receptor antagonist, has found to be beneficial in Hodgkin's itch.

HIV Itch

There are many causes of itch in HIV+ patients. Treatment depends on the cause but, when not associated with skin disease or infestation, it is largely empirical. Some patients obtain benefit from use of indomethacin 25 mg po TID.

Senile Itch

Senile itch is Itch without an obvious cause occurring in more than half of the population aged greater than 70 years.

Treatment:

- Non-pharmacological: Moisturizing with emollients; good skin care habits.
- Oral antihistamines, such as diphenhydramine or hydroxyzine. Use with caution as they can cause significant sedation and dizziness, and increase the risk for falls.

References:

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November is National Hospice and Palliative Care Month. Throughout the month of November, let's work together to help the community understand how important hospice and palliative care can be.

Medication Cost Spotlight

Nate Hedrick, PharmD

Medication	Cost Changes*	Cost-Effective Alternatives	Clinical Considerations**
Olanzapine (Zyprexa) Tabs	$15-$30 for 15-day supply depending on dosing.	Risperidone $30 for 15-day supply Haloperidol $20 for 15-day supply Quetiapine $15 for 15-day supply	Olanzapine has improved in cost recently and has always been clinically similar to risperidone. Because of this adjustment in price, olanzapine has moved from Tier 3 to Tier 2 on our most recent Preferred Drug List (PDL) update. Olanzapine Orally-Dissolving Tablets (ODT) remain quite expensive however and should be avoided.
Sucralfate (Carafate) Liquid (1g/10mL)	~$250 for a 15-day supply	Carafate Tabs: $25 for 15-day supply	Sucralfate forms a complex with proteins in the stomach to create a paste-like adhesive substance. This forms a coating that locally protects against stomach and bile acids. This process works regardless of whether the liquid or the tablets are used.

*Please note that drug costs may vary by geographic region and individual pharmacy. Prices provided above are estimates only and may not reflect the exact cost for a prescription for your hospice.

**Alternatives provided may not be appropriate for all patients and are provided as a general recommendation only. Please contact a ProCare Clinical Pharmacist for patient-specific recommendations.

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