When Cancer Pain Breaks Through

Russell Portenoy, MD
Chairman, Department of Pain Medicine and Palliative Care
Beth Israel Medical Center
New York, N.Y.

Professor of Neurology and Anesthesiology
Albert Einstein College of Medicine
Bronx, N.Y.

Breakthrough Pain

- What is breakthrough pain?
- Why is it important?
- How common is it?
- What are the characteristics?
- How should doctors evaluate it?
- How should it be treated?
Breakthrough Pain

- It is important to distinguish a type of pain if it
  - Has a unique cause
  - Has importance in the lives of patients
  - Has specific treatments

- Breakthrough pain should be distinguished because it
  - Is important in the lives of patients
  - Has specific treatments

Cancer-Related Breakthrough Pain: Importance in the Lives of Patients

- Compared with patients without breakthrough pain, patients with breakthrough pain have:
  - More severe pain
  - Reduced response to opioid therapy
  - More problems functioning
  - More psychological distress
  - Higher cost of care
Breakthrough Pain: Overall Pain Control

Better pain control: $P < 0.001$

Breakthrough Pain: Satisfaction with Pain Control

Better satisfaction: $P < 0.0005$

References:
Breakthrough Pain: Impact on Mood

Better mood

 Patients without BTP

 Patients with BTP


Breakthrough Pain: Impact on Function

Without BTP: better activity, mood, walking, ability to work, social relations, sleep, and life enjoyment

Patients with BTP

Patients without BTP
Breakthrough Pain: Cost of Care

### Hospitalizations

- Without BTP: 36.9%
- Less costly care: 22.5%

### Estimated Annual Cost

- $1.7 Million
- $192,000

- Patients with BTP (N=160)
- Patients without BTP (N=89)

P<0.02

---

Breakthrough Pain: What Is It?

- **Breakthrough pain**
  - A type of pain defined by its timing and its severity
- **Sometimes called by other names:**
  - Episodic pain
  - Incident pain
  - End-of-dose failure
Breakthrough Pain: What Is It?

- Most common definition:
  - A *transitory, severe* or *excruciating* pain, which *lasts seconds to hours* and is *superimposed on a background pain* that is controlled using an opioid medication.
Cancer-Related Breakthrough Pain: How Common Is It?

- Outpatient practices: 33%
- Inpatient settings: 50-90%
- Home care/inpatient hospice: 89%

Breakthrough Pain: What are the Characteristics?

- Every person is different
- Usually similar to the background pain in terms of location and cause
- Frequency: Usually about 2 to 3 attacks per day
Breakthrough Pain: What are the Characteristics?

- Most episodes come on very quickly, peaking within a few minutes
- Most episodes last a short time but some last hours
- 50% associated with voluntary actions, like walking
- Almost half the episodes occur without warning

Cancer-Related Breakthrough Pain: Predictability

- Never 48%
- Sometimes 19%
- Often 7%
- Almost always 11%
- Always 15%
- Episode occurs without warning
Breakthrough Pain: How Should Doctors Evaluate It?

• Issues
  • Some doctors do not appreciate how important breakthrough pain can be:
    • They may not know the recent research
    • They may think that the patient is managing it well because a short-acting drug has been given
    • Patients may not complain about pain in general
    • Patients may not mention that the breakthrough episodes are a problem

• Issues
  • Patient should know
    • Both pain in general and breakthrough pain specifically should be viewed as significant problems that should be evaluated by physicians
    • If the doctor does not ask about pain, the patient should bring it up
    • If a treatment is not working well enough, tell the physician and ask that it be changed
Breakthrough Pain: How Should Doctors Evaluate It?

- To evaluate the pain in general, the doctor should ask questions about
  - Pain location, severity, quality, timing and factors that make it better or make it worse
  - Prior treatments and evaluation
  - Current treatments, include effectiveness, side effects, and benefits on mood, sleep, energy and functioning

Breakthrough Pain: How Should Doctors Evaluate It?

- To further evaluate the pain,
  - An examination is done
  - X-rays, CT scan or MRI may be needed
- All this information should inform the doctor about the:
  - Characteristics of the background pain and the breakthrough pain
  - The specific causes of these pains
  - Other problems and conditions that are important in developing a plan of care
Breakthrough Pain: How Should Doctors Evaluate It?

- Issues
  - Sometimes treating breakthrough is an **urgent** problem
  - A high level of pain—background pain or breakthrough pain—is **never** acceptable

Breakthrough Pain: How Should It Be Treated?

- Guidelines based on expert opinion
- Elements:
  - Treat the underlying cause if possible
  - Adjust the opioid pain medication for the background pain
  - Use specific treatments for breakthrough pain
Breakthrough Pain: How Should It Be Treated?

- Treat the underlying cause if possible
  - Cause of the pain
    - Example: Radiation to cancer in a bone
  - Cause of the specific episodes
    - Examples:
      - Cough medicine for pain precipitated by cough
      - A brace for a limb that hurts with movement

- Adjust the opioid pain medication for the background pain
  - Most clearly useful for “end-of-dose failure”
  - Theoretically helpful in other breakthrough pains
  - Risk of overmedication
  - Controversial
Breakthrough Pain: How Should It Be Treated?

- Specific treatments for breakthrough pain
  - Non-drug therapies
  - Drug therapies
Breakthrough Pain: How Should It Be Treated?

- Non-drug therapies for breakthrough pain
  - Application of heat or cold
  - Massage or stretching
  - Cognitive techniques like deep relaxation, mental imagery or self-hypnosis

Breakthrough Pain: How Should It Be Treated?

- Drug therapy for breakthrough pain
  - Non-opioid
    - Acetaminophen
    - NSAID like ibuprofen or naproxen
  - Opioid
Breakthrough Pain: How Should It Be Treated?

- Opioid treatment for breakthrough pain
  - Known as “rescue dose”
  - Should be considered the standard of care for cancer patients
  - Treatment guidelines based on expert opinion

“Rescue Dose” According to Expert Opinion

- Expert opinion:
  - Most common approach at the present time
    - Oral, short-acting opioid drug, usually the same drug as the one used for the background pain
    - Examples: oral morphine, oral oxycodone, oral hydromorphone
“Rescue Dose”
According to Expert Opinion

• Expert opinion:
  • Most common approach at the present time
    • Dose is a percentage of the dose given for the background pain
    • Dose can be taken every 1 or 2 hours as needed
    • Dose should be adjusted over time to give the best relief possible without intolerable side effects

• Expert opinion:
  • New “rapid onset” drugs have appeared on the market and offer an alternative that may be considered on a case-by-case basis
New rapid onset formulations use a drug, fentanyl, that can be absorbed through the mucous membranes.

The drug enters the bloodstream faster and can give quicker relief.

- Approved formulations in the US and Europe
  - Oral transmucosal fentanyl citrate
  - Fentanyl effervescent buccal tablet
  - Bio-erodible mucoadhesive (BEMA™) patch
  - Fentanyl solution nasal spray
  - Sublingual fentanyl tablet
- Others are in development
Rapid Onset Opioids for Breakthrough Pain

- Not enough information to know who would benefit from these drugs
- It is reasonable to offer them, if possible, to:
  - Patients who do not benefit from an oral drug because it works too slowly, and
  - Patients whose breakthrough pain appears quickly and severely
- Cost and insurance coverage may be an issue

Breakthrough Pain: How Should It Be Treated?

- Other issues concerning opioid treatment
  - All opioids can cause side effects such as sleepiness, mental clouding and constipation
    - The physician should be told about side effects
    - If possible, the patient should describe the side effects of the background opioid and the opioid for breakthrough pain separately
Breakthrough Pain: How Should It Be Treated?

- Other issues concerning opioid treatment
  - Each person responds different to each opioid drug
    - If side effects occur, the opioid can be switched—called “opioid rotation”
    - If side effects are largely due to the rescue dose, just the rescue dose can be changed

- Other issues concerning opioid treatment
  - All opioids are ‘abusable’
    - The physician must monitor them carefully and follow the regulations about prescribing
    - The physician may request urine drug tests or other measures to improve monitoring
    - The patient must be vigilant in terms of storing the medication in a way that reduces the risk of theft
    - The patient must follow instructions and communicate any problem that occurs
Breakthrough Pain

Conclusions
- Breakthrough pain can be a significant problem
- Patients with cancer pain should make sure that their physicians evaluate both the background pain and breakthrough pain
- If breakthrough pain is distressing, it should be treated
- There are many approaches to treatment and patients should discuss the options with their physicians
- Ongoing communication is important, and if a treatment does not work, another should be tried
- More research is needed in this area

Resources
- APF Website – www.painfoundation.org
- American Cancer Society – www.cancer.org
- CANCERCare – www.cancercare.org
- Cancer Support Community – www.cancersupportcommunity.org
- Lance Armstrong Foundation – www.livestrong.org
- National Coalition for Cancer Survivorship – www.canceradvocacy.org
Questions & Answers

Thank you for joining us!