Making Sense of Ototoxicity

By

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OTOTOXICITY

• Chemicals Damage Ears/or Nerves

• Number of Substances Unknown

• More Questions than Answers
Purpose of Workshop

• Awareness

• Education & Process

• Empowerment
Purpose of Workshop

• Prevention Strategies

• Patient Role

• Treatment Choice

Limitations
Affected Area
Inner Ear & / or Nerves
Possible Symptoms

• Hearing Loss

• Tinnitus

• Noise Sensitivities

• Balance/Dizziness/Nausea
Chemicals Everywhere…

- Environmental
- Medications
- Supplements
- Herbals…
Medications

• Lack of Studies

• Post Marketing Data

• Some Known Offenders

• Many Contributing Factors for Symptoms
Contributors to Medication Ototoxicity

- Overall Patient Condition
- Genetics
- Drug Accumulation
Contributors to Medication Ototoxicity

- Mode of Administration
- Lack of Monitoring
- Self-Medicating
What We Can Do

• Report Existing Problems
• Report Medications & Other Treatments
• Have Records “Flagged”
• Ask for Medication Pre-Screening
What we Can Do

• Ask Alternative Specialists for Info

• Report Suspicious Symptoms at Once & Ask for Guidance

• Report to FDA MedWatch (fda.gov/medwatch)
What We Can Do

• Read Labels & Information

• Protect Ears From Excess Noise

• Antioxidants
NSAIDs: Non-Steroidal-Anti-Inflammatory Drugs

- Arthritis, Pain, Fever
- Esp. High Dose
- Prolonged/Regular Use
- Effects Can be Permanent
Salicylate Awareness: Read Lables!

• Hide in Many Products

• Listed as Salycin or …Salicylate

• Aspirin = ASA (Acetyl Salicylic Acid)

• Also in Herbal Remedies
NSAIDs: Avoid/Decrease Use?

• Arthritis:
  Lifestyle changes
  Targeted Exercise
  PT; Braces; Wraps..

• For Persistent Pain:
  Consult Physician
Acetaminophen (APAP); Tylenol, Paracetamol

- Never Been Suspected
- In Many Combination Products
- Regular Use Tied to Hearing Loss
- High Doses Toxic to Liver!
Opioids (Narcotics)

- Mechanism on Ears not Well Understood
- Time & Dose Related
- Vestibular & Hearing Changes
Opioids (Narcotics)

- Oral APAP or ASA Combos
- FDA Now Limits APAP Amount in RX Combos
- Revisit Toxicity Issue(?)
Loop Diuretics

- Different from “Ménière’s” Thiazides
- High Dose
- Especially Fast IV
- Effects can be Permanent
Aminoglycoside ANTIBIOTICS

• Not First-line Antibiotics

• Cochlea & Vestibule

• IV

• Dosing & Monitoring!
Aminoglycosides

• Ear Drops: Caution if Eardrum Damage

• Topical Creams & Ointments
Chemotherapy

• Not all Drugs are Ototoxic

• Strict Supervision

• Treatment Protocols

• Known Offenders
Beware of Everyday Substances

- Caffeine
- Nicotine
- MSG
- Aspartame
- Excess Sugar
- Alcohol
- Excess Salt