

1. Geriatrics in Endodontics

GERIATRICS in Endodontics

- Endodontics has been successively performed on patients ranging from the age of 2yrs to 96 yrs.
- Endo is far less traumatic than extraction in older patients
- Older patients (60-80) are very aware of their oral health & the saving of each tooth. Dentures have been avoided for their whole life.

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2. Aging

Aging

- As the body ages, inevitable retrogressive changes take place in a number of body tissues.
- Changes are also seen in the dental pulp.

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3. Pulpal Changes due to Aging

Pulpal Changes due to Aging

1. The number & size of pulpal cells decrease.
2. The number of pulpal collagen fibers increase.
3. Constant recession of the pulp due to secondary and tertiary dentin formation.
4. The number of blood vessels and nerve fibers decrease.

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4. Pulpal Cellular Changes due to Aging

Pulpal Cellular Changes due to Aging

1. The number of odontoblasts and fibroblasts decrease.
2. Remaining odontoblasts & fibroblasts are more likely to appear less active. (In these normally active cells, there are fewer organelles associated with synthesis and secretion.)

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5. Pulpal Fibrotic Changes due to Aging

Pulpal Fibrotic Changes due to Aging

1. Decrease in number & size of fibroblasts.
2. Apparent increased fibrosis with time may not be from continued formation of collagen but may be due to the persistence of connective tissue sheaths in an increasingly narrow pulp space.

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6. Dentin Formation

DENTIN FORMATION

Continues throughout your entire
life
as long as the pulp remains vital

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7.

Primary Dentin

Primary Dentin

forms before tooth eruption

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8.

Continued Dentin Formation

Continued Dentin Formation

1. Secondary Dentin
2. Tertiary Dentin
 - a. irritation dentin
 - b. reparative dentin

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9.

Secondary Dentin

Secondary Dentin

1. Formation of dentin continues with time.
 - a. Anterior teeth – greatest secondary dentin deposition in the incisal pulp.
 - b. Posterior teeth – greatest secondary dentin deposition on the floor of the pulp chamber
2. Makes location of the pulp chamber and/or root canals difficult

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10.

Secondary Dentin (Continued)

Secondary Dentin (Continued)

3. The pulp chamber of posterior teeth becomes flattened and “disc-like” making it easier to pass a bur through the chamber into the furcation.

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11. Pulpal Vascular Changes in the Pulp

Pulpal Vascular Changes in the Pulp

1. Decrease in number of blood vessels.
2. Many pulpal arteries may demonstrate arteriosclerotic changes similar to those seen in other tissues.
3. Arteriosclerosis results in the decrease of the lumen size with intimal thickening and hyperplasia of elastic fibers
4. Calcification of of precapillaries and arterioles is also common.

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12. Tertiary Dentin Formation

Tertiary Dentin Formation

1. Teeth age, not only through the passage of time, but also under stimulation of function and irritation.
2. An old or "aged" tooth may represent a premature response to the abuses of caries, extensive restorative procedures and inflicted trauma.

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13. Tertiary Dentin (Continued)

Tertiary Dentin (Continued)

3. Since the pulp reacts to its environment and is in intimate contact with dentin, it responds to abuses by altering the anatomy of its internal structures and surrounding hard tissue.
4. Whenever dentin is violated by caries, attrition or abrasion, one should expect increased amounts of hard tissue in the underlying pulp.
5. Irritation dentin may be extensive enough to fill the entire pulp chamber.

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14. Reliability of Pulp Testing

Reliability of Pulp Testing

- Pulp with a high degree of pulpal calcifications may give false negatives to pulp testing procedures including cold, heat and EPT.

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15.

Virility of Older Pulps

Virility of Older Pulps

1. Older pulps are described as regressive having a decreased ability to combat and recover from injury.
2. THIS HAS NOT BEEN PROVEN.
3. The dentist should NOT assume that the pulp in older individuals are less likely to respond favorably than are younger pulps.

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16.

Endodontic Complications in Treating the Geriatric Patient...

Endodontic Complications in Treating the Geriatric Patient

1. Pulpal calcifications may interfere with location of remaining pulpal spaces.
2. Heavily restored teeth may interfere with endodontic diagnosis and treatment.
3. Long-standing periodontal disease may affect pulpal status
4. Attrition, abrasion, gingival recession is more prevalent.

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17. Endodontic Complications (Cont.)

Endodontic Complications (Cont.)

5. Keeping the older patient informed & knowledgeable may take longer
6. Medical histories tend to be more complex
7. Elderly patients may have postural problems as well as stamina considerations.
8. Elderly patients may more often have problems with the rubber dam, such as breathing, gagging and salivary collection.

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18. Endodontic Recall

Endodontic Recall

- In the older patient. it may take longer for a periapical lesion to heal than in a younger patient.
- It may take 2 years for a PA lesion to heal as opposed to 6 months in a younger pt.

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19.

Conclusion

Conclusion

- 1. Treat the elderly with dignity and respect.
- 2. Pay attention and focus on their needs and expectations.

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