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Research Article

Dental Organ Actinomycosis: Root Canal Portals (Principled Total Body Infections)

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Cervical Actinomycosis is the most frequent form of the condition known as "Lumpy Jaw Syndrome"—LJS, a kissing cousin to Ludwig's Angina. The tenacious biofilms of the oral cavity coating the mucosa, gingivae, gingival crests, gum pocket defects, cracks in teeth, carious defects, root canal teeth and dental implants and their hardware are composed of a panoply of microorganisms [1,2].

What is known today as Periapical Endodontic Disease—once characterized as Chronic Septic Apical Peri-Cementitis—the dental abscess located upon the roots of root canal dead teeth, ligaments and bone, are the primary portals of entrance of the actinobacteria (ray-fungal bacteria); most prevalent in biofilms, entrenched gooey worlds of microbe milieus including herpesvirus, Epstein Barr virus, AIDS, Corona viri (CoV-19), and Human Immunocompromised Virus—HIV into gangrenous teeth. All microbials purposefully work as best they can, together, maintaining the health of the individual; but, once out of balance they cause harm—acidic infirmities.

Actinomyces is an anaerobic, gram-positive bacillus that is known to cause chronic granulomatous infections. The common risk factors predisposing patients to this life-threatening infection are recent dental procedures, immunosuppression from malignancy or other microorganisms. Actinomyces is found in the normal flora of the oral cavity and is one of the decomposers that can clean up Ludwig's angina. Ludwig's angina is diffuse cellulitis and edema of the soft tissues of the neck and floor of the mouth.

Cervicofacial actinomyces bacteria and associated virons are an invasive infection that can form life-threatening abscesses through its rapid spread. Actinomyces turicensis is an form that has emerged recently to cause infections in humans. There are few reported cases of this species causing abdominal and genital infections. A feared complication of Ludwig's angina and cervicofacial actinomyces is airway compromise. Therefore, prompt initiation of intravenous antibiotics is required for the treatment and prevention of deadly complications [3].

Systemic disseminated actinomycosis may derive from the focus on the 1) human head and neck, cervical area as it is called; or 2) the chest pulmonary area; or, the 3) genital pelvic region. It may also affect the CNS. All areas infected begin as small masses, swirls of fimbriae expanding into observable nodules, abscesses. These networks prevent the immune system from being effective in quelling the infection, see figure 1.

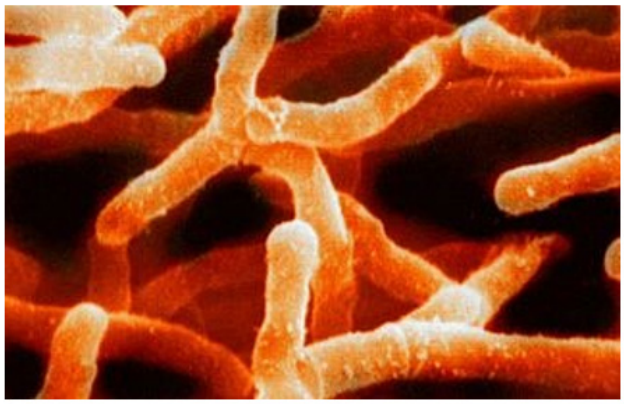

Figure 1: Actinomycotic Bacterial Fungal Network.

Symptoms are head and neck pain or swelling, shortness of breath, foul breath odor or abdominal genital pain or discharge. This most often accompanied by malaise, loss of appetite, abnormal swellings, and fevers. An excellent current overview of its many aspects may be found here: Actinomycosis in histopathology - Review of literature by L. Veenakumari, C. Sridevi. IAIM, Vol. 4, Issue 9, September, 2017.

It is questioned, what is the exact aberrant chemo-physiology of this malady Actinomycosis and its portals of entry? Undoubtedly accepted, there must first be a wound in the epithelial lining of a skin covering a dermis, oral mucosa, tracheal mucosa, esophageal mucosa or alimentary canal epithelium [4,5].

Actinomyces species is collaborative in the milieu biofilm known for its harmonizing qualities. However, once in the subterranean sterile tissue spaces of the human being it takes on the role of a *decomposer* or a phagocytizer when introduced to dead tissue. Actinomyces bac. is present in dental decay lesions, gum decay lesions, root canal teeth, and Chronic Septic Apical Peri-Cementitis—Apical Abscesses, Granulomas, Cysts and Fibromas.

In soil science Actinomyces plays a similar role as it does in the human infected sterile sub-epidermal tissues, mainly as a *decomposer*! The Actino-bacteria decompose the roots of dead plants, specifically hard to dissolve cellulose. They are also the source of that fresh earth smell after a rain, the chemical geosmin. As it turns out, the smells people associate with rainstorms can be caused by a number of things. One of the more pleasant rain smells, the one we often notice in the woods, is actually caused by bacteria! Actinomycetes, a type of filamentous bacteria, grow in soil when conditions are damp and warm. So, we actual observe a principle of nature at work.

What is this principle you may ask?

The principle of life

- Compose/Decompose
- Creation/Decreation
- Crystalize/Decrystalize
- Appear/Disappear

Our book "DEATH BY ROOT CANAL...slow blood

poisoning" (Amazon.com) reveals, through 35 years of clinical research, over 330 pathology reports from Queens Hospital pathologist KH, and over 400 teeth and dental implants documented in the book:

- 45% of Apical Lesion with Actinomyces— fungal bacteria present;
- 42% of apical lesions demonstrated "marked acute/chronic inflammation";
- 72% of apical lesions demonstrated "chronic inflammation".
- 100 % Apical Septic Pathology such as Cysts, Abscesses, Osteitis, Osteonecrosis, Reactive Bone, Granuloma, etc.

A dead dental organ without blood supply (ergo gangrene), nerve supply, lymphatic drainage, replacement cells will inevitably "decompose"—rot away as the roots of an oak tree do once the tree is no longer green, is dead. It is not a mystery at all!

In all life we have:

- "Composition"—birth, growth, development and maturation for the first half of Life...a phase of the life-span of humans. And then we have the second half of Life…
- A phase of "decomposition" for the second half of Life, after which we move on… removed from the physical world like a dead infected dental skeleton would be by extraction!

The bacterial fungal Actinomyces works in the soil of earth, below its surface to decompose cellulose and other dead plant roots as they do in the mouth of human beings—in deep tissue spaces of Odonton Roots.

Actionmyces is a resident in human saliva to balance the microbial flora for optimal metabolism; but, not below the mucosa, in the "sterile spaces" of your body—jaw bone. They play a different role!

Once deployed there in the sterile spaces of the jaw by "Root Cadavering", Actinomyces with other decomposer bacteria and viruses such as staph, strep, treponema, herpesvirus, etc. breakdown the "Root Canal" in a natural process of decomposition, like the decomposition of the roots of the oak tree—inevitable, unstoppable, so also with Root Cadavers.

Evidence for this is in our book, clear and compelling— unimpeachable! One cannot reverse a Principle of Nature, cannot!

Maintaining foreign objects in the body such as IUDs, dental implants, and Root Canal Shells invite the onset of the normal de-

composition phase of their lives by marshaling forth autoimmune responses and the bacterial/viral decomposition team, the A-Team, or Actinomyces Team. We live in sterile water sac below our skin. Figure 2 Demonstrates this fact and reality visually. Figure 3 Shows real dead teeth after extraction blackened by infection with soft tissue pus sacks.

Cryptobiosis is a metabolic state of life entered into by a biological form in response to adverse environmental conditions such as anoxia, cytopenia, leukopenia, general blood poisoning, septicemia, bacteremia, etc. In the cryptobiotic state, all measurable metabolic processes slow, are impaired and will eventually stop; if not corrected, this will prevent reproduction, growth, development and repair. When external or internal environmental impaired conditions return to being hospitable, the organism may return to its normal metabolic state of life as it was prior to the cryptobiosis. However, in all cases there is a point of no return [7,8].

The dental organ—odonton—having lost its living tissues, innervation and circulation is cryptobiotic—it has no life, no metabolism within the organ proper or it's hard structures. The only life present after death of the dental organ are microorganisms, bacterial, viral or otherwise within the weathering dental skeleton! Along this line is the current misconception that the odonton may be resuscitated, if you consider, by the dental mortician, endodontist. The modern endodontic ruse is offered and insisted upon by the overbearing "know it all" dental personnel. From the receptionist to the hygienist to the doctor himself we hear the jingo… "you must save your tooth at all costs, no questions asked".

The doctor's intentions may be good in a sense, and yet not so good for you in respect to oral-systemic health. All they are doing is barking the jingoes, unexamined concepts they learned in dental school. One does not graduate from an American dental school without being able to regurgitate the dictums taught. One is that "root cadaver canal therapy" is normal.

Cogent historical review of documents does not support this view.

This may sound cynical, yet I proclaim it loudly nonetheless, in the current mode of so-called dental education there is no room for either dialogue and debate in matters of "settled science". The concept settled science is oxymoronic. Science evolves, transforms, mutates as we humans do.

Pure metabolic tissue spaces

Physiology reveals that below the human skin, epidermis, all water compartments within and structures found are sterile, pure, is fact.

Metabolism flourishes in purity and this is contrary to infected inflamed conditions.

Infections in the mouth can develop into chronic localized or systemic infections—conditions we refer to as disease or illness. In the pathogenesis and evolution of glomerular nephropathies (sclerotic diseases), these localized infections play an important role. Renal patients, for instance, appear to be subject to a variety of dental problems, including periodontal disease, narrowing of the pulp chamber, enamel abnormalities, premature tooth loss, and xerostomia [1,6,8]. Renal difficulties also often arise after a specific stomatologic (oral) treatment of dental foci. The dental infection can localize in the pulp of the dental organ, developing into acute gangrenous pulpitis. On the other hand, a chronic evolution from gangrenous pulpitis may lead to the formation of dental granulomas, cysts, osteomyelitis, other bone conditions, and abscesses in the bone surrounding the root of the tooth. In the evolution of these infections, acute phases may occur, despite the fact that the human host tries to isolate these foci by forming a layer of fibrin and connective tissue around these lesions - much like skin protects the hands by forming blisters and ultimately calluses after a lot of hard work in the backyard vegetable garden.

During these phases, microbes and their toxins are able to enter the general circulation. They may produce other lesions in other tissues - a process known as effective localization—either directly or indirectly by forming immune complexes. These are deposited in different tissues where they can activate different factors like complements C-reactive proteins in the liver, for instance. Often, the kidney is the target organ, since it's the master filter for the vascular system.

Metabolism takes place in a sterile environment for multiple reasons. The person with chronic infections/inflammation is prevented from optimal metabolism due to acidosis. Acidosis is a resulting disruption of sterile tissue spaces due to chronic acid conditions caused by circulating aberrant micro-organisms or other metabolic disorders. Consider the main purposes of healthy metabolism: 1) the conversion of food and fuel to build structures for proteins, lipids, nucleic acids, and 2) the elimination of nitrogenous waste

products. Enzymes of metabolism catalyze essential reactions in life without the input of bacteria, viruses, prions, or other foreign materials, ensuring a "pure pathway to successful metabolism" - i.e., growth and development [9].

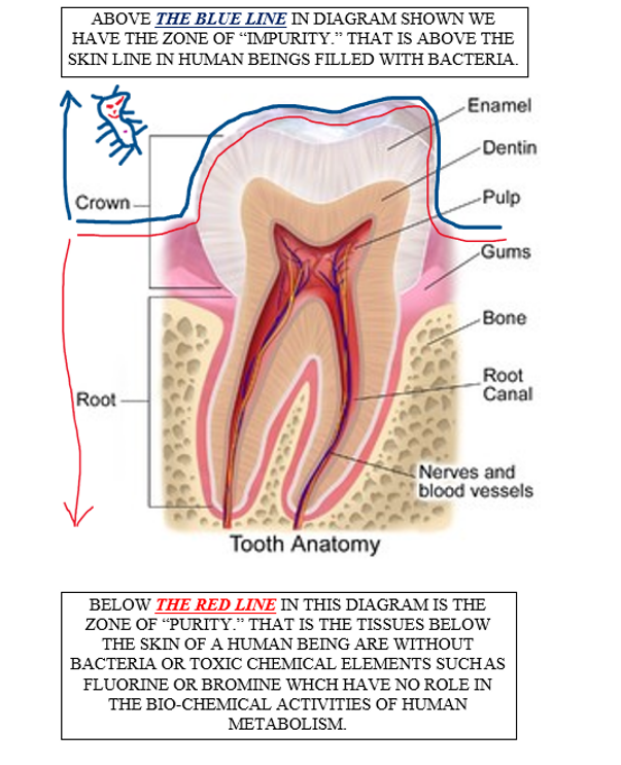

Figure 2: Sterile Dental Organ.

Sterilized Root Cadavers?

Figure 3: Recently Removed Root Canal Cadavers—abscess material below roots were in the sterile space below the gums.

Decomposition is a natural phenomenon

As sure as "Nature" constructs matter, the dental organ, the opposite is sure to follow. Nature's next phase is of human physical dental organ decomposition of the *dead dental organ*, or, the root canal shell [10].

- This decomposition process of the human body is the same for the dental organ, the odonton. It begins with AUTOLYSIS and in this first stage of human decomposition, or self-digestion begins immediately after the loss of blood circulation—death. As soon as blood circulation and respiration stop, the body has no way of receiving oxygen or removing metabolic wastes. Excess carbon dioxide causes an acidic environment, causing membranes in cells to rupture. The membranes release enzymes that begin eating the cells from the inside out (see Figure 4).
- The second stage is BLOAT and is characterized by leaked enzymes from the first stage producing many gases. The sulfur-containing compounds that the bacteria release also cause skin discoloration. Due to the gases and fluids, in the human body can double in size. In thedead dental organ gas/fluid escapes through the apical region causing a change in tooth biting patterns, swelling in the ligament spaces. The microorganisms and bacteria within the odonton produce extremely unpleasant odors called "putrefaction—sepsis" due to chemicals putracene, cadaverene, and thioethers and their gas-fluids. These odors often alert others that a person has died (the tooth has died), and can linger long after a body has been removed, or the dental organ, tooth, removed—"bad breath".
- The third stage in the human body and dental organ demise is ACTIVE DECAY is which fluids released through orifices indicate the beginning of active decay. Organs, muscles, and skin become liquefied. When all of the body's soft tissue decomposes, hair, bones, cartilage, and other byproducts of decay remain. The cadaver loses the most mass during this stage. This is also true in the "root canal cadaver" as it decomposes slowly due to natural physiologic processes, bacterial dissolution of organic matter left in inaccessible root caverns and crypts. At this point, the tooth leaks into the peri-radicular tissues (bone marrow interstitial and cellular spaces) forming abscesses and other altered tissues to protect from the inevitable unavoidable impact of Systemic Infectious Reaction Syndrome (SIRS). The cartoon below or

a root canal tooth and its infective distribution gives us some comic relief for this most severe and serious condition of the human body—the gangrenous dental organ having been "root canalled" (Figure 4).

- The final stage or fourth stage is SKELETONIZATION and is marked by the loss of organic (collagen) and inorganic components; there is no set timeframe when "skeletonization" occurs, usually with removal.

Conclusion

I conclude this presentation with the fact that the fundamental Principles of Nature cannot be repealed; that medicine or pharmacology, nor other "hocus—pocus", can reverse the laws of composition or decomposition. Neither can endomortology with Root Canals. No matter what is presented in the future the Natural Principles of gravity cannot be repealed; and, so also with the Natural Principle of composition or decomposition.

Summation of our 35 years of research may be found in this document at its end; and, I trust it will be of aid to the profession and other human beings. Einstein said "In the long standing conflict between technology and microbes…microbes will win" [8-10].

Figure 4: Systemic Distribution Infected Matter.

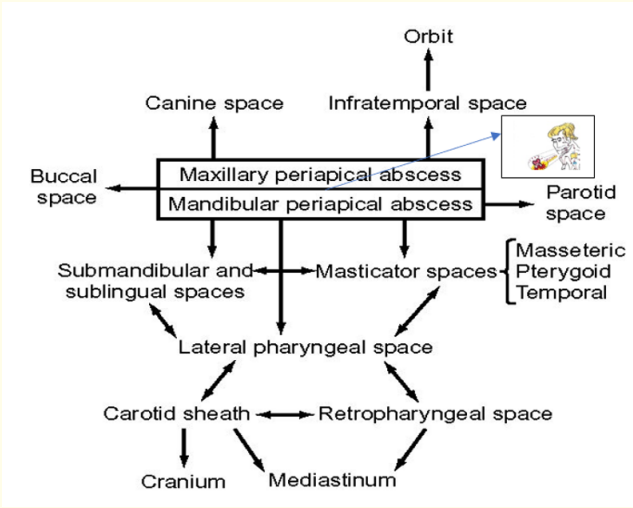

Figure 5: Systemic Pathway Infection of Dentoalveolar Abscesses.

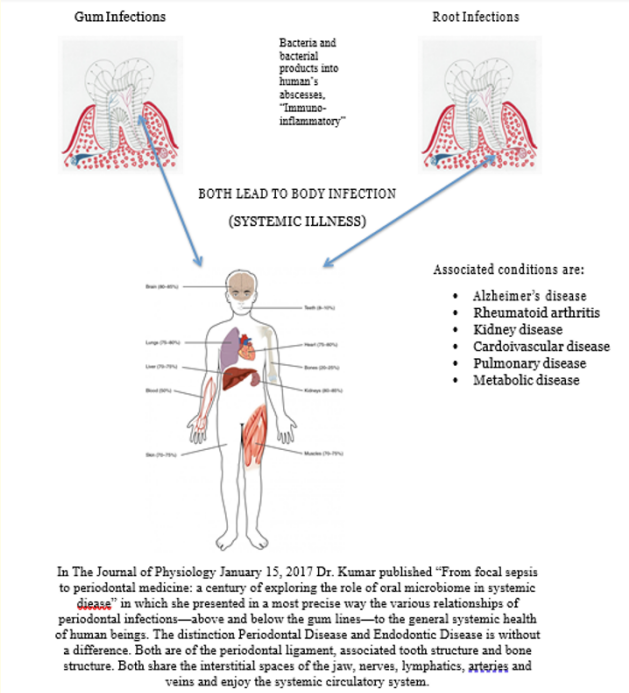

Figure 6: Oral Systemic Associated Conditions.

Histo-patholoical studies 1986-2019 of soft tissue and bone about the roots of endo teeth and metal implants done at queens hospital honolulu, Hawaii.

Disclosure

Dr. Carlson is the inventor of the Carlson Bridge® "Winged Pontic" tooth replacement system, a noninvasive approach to replacing

Gender		Age	Endo Tooth #	Pathology	Bacteria
Female	3/5/19	65	#24	Radicular periapical cyst, marked acute/chronic inflammation, reactive and dead bone	(+) Actinomyces
Female	1/19/19	68	#20/19	Periapical Granuloma/Cyst with marked acute/chronic inflammation, reactive bone, devitalized bone	(+) Actionmyces
Female	1/10/19	68	Pre-Endo #28	Periapical Scar, thickened reactive bone with fibrosis	(+) Actionmyces
Male	1/10/19	68	#7	Periapical Scar—amalgam tattoo with chronic inflammation, black pigmentation	(-) Actinomyces (not seen)
Male	12/31/18	80	#s 19 ,20 ,19	Periapical Granuloms, marked acute/chronic inflammation	(+) Actinomyces
Male	12/22/18	80	#28	Periapical Abscess/Granuloma, marked acute/chronic inflammation, necrotic bone (thyroid cancer w/radiation	(+) Actinomyces
Female	12/16/18	83	PreEndo #19/18	Periapical Granuloma/Cyst, marked acute/chronic inflammation, reactive bone	(+) Actinomyces
Female	12/5/18	83	Pre Endo #3	Apical Granuloma/Cyst, marked acute/chronic inflammation, reactive bone and necrotic bone	(+) Actionmyces
Female	11/19/18	58	#18,19	Periapical granuloma/cyst marked acute/chronic inflammation, reactive bone and thickened	(-) Actinomyces (not seen)
Male	11/5/18	67	#18	Periapical granuloma, marked acute/chronic inflammation reactive bone (had sever resp. cough/challenge)	(+) Actinomyces
Male	10/30/18	68	#13	Periapical scar, chronic inflammation, reactive bone	(+) Actinomyces
Male	10/23/18	69	#28	Scant fibrovascular tissue, reactive bone and inflammation	(+) Actinomyces
Male	9/29/18	43	#3	Periapical granuloma, marked acute/chronic inflammation, reactive bone	(-) (not seen)
Female	9/22/18	70	#15	Radicular periapical cyst, granulation tissue and fibrous tissue marked acute/chronic inflammation, necrotic bone	(-) (not seen)

Female	9/19/18	58	#29	Radicular (Periapical) Cyst granulation/fibrous tissue acute/ chronic inflammation necrotic bone	(-) (not seen)
Female	8/31/18	67	Pre-Endo 3	Periapical bone reactive and necrotic bone with chronic inflammation	(+) Actinomyces
Female	8/25/18	69	12	Periapical granuloma/cyst marked acute/chronic inflammation	(+) Candida Actinomyces
Male	8/10/18	45	18	Periapical Scar, chronic inflammation	(-) (not seen)
Female	8/3/18	70	2	Periapical granuloma, marked acute/chronic inflammation	(-) (not seen)
Male	7/25/18	45	Pre-Endo 2	Radicular Cyst, marked acute/chronic inflammation dead/ reactive bone	(+)
Female	7/23/18	71	12	Radicular Cyst/Fistula, cystic lesion with marked acute/chronic inflammation	(+)
Male	7/12/18	45	5	Periapical granulation/fibrosis tissue, chronic inflammation, reactive bone	(-) (not seen)
Female	7/1/18	51	3	Radicular/Periapical cyst, marked acute/chronic inflammation, granulation/fibrous tissue necrotic bone	(+)
Male	6/23/18	45	Distal root fragments, bone adhered to RC Sealer.... 30	Periapical Abscess/Granuloma, marked acute/chronic inflammation, necrotic/reactive bone	(+) Actinomyces
Male	6/16/18	45	30	Periapical Granuloma/Scar, chronic inflammation reactive bone	(+) Actinomyces
Female	6/7/18	58	14	Periapical Granuloma/Cyst, granulation fibrous tissue with acute/chronic inflammation reactive bone	(-) Actinomyces (not seen)
Male	6/6/18	67	10	Periapical Granuloma, granulation fibrous tissue, marked acute/ chronic inflammation, reactive and necrotic bone	(+) Actinomyces
Female	6/5/18	63	18	Granulation fibrous tissue (scar), Periapical Scar, chronic inflammation, dystrophic calcification, reactive bone	(-) Actinomyces (not seen)
Male	6/3/18	60	30	Radicular (Periapical) Cyst, granulation tissue/fibrous tissue, marked acute/chronic inflammation	(+) Actinomyces
Female	5/29/18	82	23 Pre-Endo	Periapical Granuloma/Cyst, marked acute/chronic inflammation	(+) Actinomyces

Male	5/16/18	67	4	Periapical Granuloma/Cyst, marked chronic inflammation granulation- fibrosis	(+) Actinomyces
Male	5/11/18	73	12	Periapical Granuloma with marked acute/chronic inflammation, reactive and necrotic (dead) bone	(-) Actinomyces (not seen)
Male	5/10/18	45	19 Pre-Endo	Apical Granuloma/fibroma, marked acute/chronic inflammation, necrotic (dead) bone consistent with CONDENSING OSTEITIS	(+) Actinomyces
Female	5/5/18	54	31/29	Periapical Granuloma, marked acute/chronic inflammation, necrotic (dead) bone, reactive bone`	(+) Actionmyces
Female	5/1/18	57	30	Radicular Periapical Cyst, marked acute/chronic inflammation, reactive bone	(+) Actinomyces
Female	4/20/18	62	20	Periapical Granuloma/Cyst marked acute chronic inflammation, granulation-fibrous tissue, reactive bone	(+) Actinomyces
Female	3/19/18	57	19	Periapical Cyst, marked acute/chronic inflammation, granulation tissue, reactive bone	(-) Act. (not seen)
Male	3/12/18	45	3	Periapical scar/Fibrosis with reactive bone lesions/ OSTEONECROSIS (dead bone)	(+) Actionmyces (present)
Male	2/26/18	56	3	Periapical Granuloma granulation/fibrous tissue with marked acute/chronic inflammation	(-) Actinomyces (not seen)
Female	1/23/18	61	14	Periapical Granuloma/Cyst marked acute/chronic inflammation reactive bone lesions	(-) Actinomyces (not seen)
Male	1/26/18	61	7	Periapical Granuloma/Cyst marked acute/chronic inflammation reactive bone lesions	(+) Actinomyces
Female	1/18/18	71	13	Periapical Granuloma/Cyst marked acute chronic inflammation	(+) Actinomyces
Female	1/17/18	48	31	Radicular/Periapical Cyst marked acute chronic inflammation reactive bone lesions	(-) Actionmyces (not seen)
Male	1/11/18	61	30	Lyme: Periapical granuloma/cyst marked acute/chronic inflammation reactive bone	(+) Actinomyces
Female	11/3/17	42	19	Periapical granuloma/abscess…marked acute/chronic inflammation with reactive bone	(+) Actinomyces

Female	9/26/17	62	30 Pre-Endo	Periapical granuloma/cyst, acute/chronic inflammation, reactive bone	(+) Actinomyces
Female	8/29/17	41	19 Pre-Endo	Periapical granulation tissue/fibrosis, acute/chronic inflammation, “partially necrotic bone” (dead bone)	(+) Actinomyces
Female	8/26/17	79	27/28	Periapical granuloma/cyst, marked acute chronic inflammation, reactive bone	(+) actinomyces
Male	7/27/17	66	2	Periapical granuloma, marked acute chronic inflammation, reactive epitheilium (cyst)	(+) actinomyces
Female	7/26/17	40	3	Periapical granuloma, fibrosis, chronic inflammation, radicular cyst reactive bone	(+) Actionmyces
Female	7/15/17	63	3,5	Periapical granuloma/cyst, fibrous tissue, chronic infection with reactive bone	(+) Actionmyces
Female	5/20/17	68	Titanium Implant #29 Abscess on mental foramen -83uA	Periapical granuloma/abscess, marked chronic inflammation, necrotic bone	(+) Actionmyces
Male	5/19/17	68	18	Periapical abscess/granuloma, marked acute/chronic inflammation, necrotic bone	(+) Actinomyces
Male	12/1/16	29	8,9,10	Periapical abscess/granuloma, marked acute chronic inflammation	(+) Actinomyces
Male	11/13/16	54	13	Periapical scar, fibrosis	(-)
Female	11/11/16	54	18, 19	Radicular Cyst, granulation fibrosis with marked acute/chronic inflammation and reactive bone	(-)
Male	9/26/16	65	19	Periapical Granuloma/Cyst acute/chronic inflammation, reactive bone	(+)
Female	8/27/16	88	19	Periapical Granuloma Cyst, marked acute chroinic inflammation, reactive bone	(+) Actinomyces
Male	7/14/16	52	3	Radicular Periapical Cyst, acute/chronic inflammation, granulation/fibrous tissue.	(+) Actinomyces
Female	7/9/16	55	13	Radicular Periapical Cyst, marked acute/chronic inflammation, massive granulation tissue and reactive bone.	(+)
Female	6/23/16	75	20	Radicular Periapical Cyst,granulation fibrous tissue, chronic inflammation	(-)
Female	5/10/16	67	18	Periapical Granuloma (abscess) with marked acute/chronic inflammation	(+)
Female	2/29/16	66	18	Radicular (Periapical) Cyst, cystic lesion with granulation tissue and marked acute chronic inflammation	(-)

Male	2/16/16	72	18/19	Radicular Cyst, granulation fibrous tissue marked acute/chronic inflammation.	(-)
Female	2/15/16	57	18/19	Fibrosis Reactive bone lesions	(-)
Female	1/28/16	60	5	Squamous Mucosa with acute and chronic inflammation	(-)
Female	1/8/16	60	4	Periapical radicular cyst, granulation tissue acute/chronic inflammation	(+)
Female	11/12/15	52	9	Periapical fibrosis/scar, acute/chronic inflammation, reactive bone lesions	(-)
Female	11/2/15	56	Metal implant #4 (with sinus perforation) -63 uA	Fibrosis, chronic inflammation, reactive bone lesions	(-)
Female	11/2/15	56	29,30,31	Periapical Granuloma, chronic inflammation, reactive bone lesions	(-)
Female	10/24/15	33	8,9	Periapical Granuloma/Cyst, marked acute chronic inflammation, necrotic bone	(+)
Female	10/24/15	33	4,5	Periapical Granuloma/Scar, chronic inflammation, reactive bone lesions	(-)
Female	8/31/15	60	13	Periapical Granuloma, Cyst chronic inflammation, inflamed mucosa	(+)
Female	8/28/15	48	29	Periapical Granuloma/Cyst, marked acute/chronic inflammation, fibrosis, necrotic bone	(-)
Female	8/27/15	33	2,3	Periapical Granuloma/Cyst, marked acute/chronic inflammation, fibrosis, reactive bone	(-)
Male	7/31/15	64	3	Periapical Granuloma, fibrosis, marked chronic inflammation`	(-)
Female	7/28/15	35	29	Peripaical/Radicular Cyst/Granuloma Acute/chronic inflammation, reactive epithelium, reactive bone	(+)
Female	7/16/15	46	15	Periapical Radicular Cyst/Granuloma chronic inflammation, reactive epithelium, reactive bone	(-)
Female	6/18/15	61	31	Periapical Radicular Cyst, marked acute/chronic inflammation, reactive bone, fibrosis	(+)
Male	6/13/15	77	3,4	Periapical granuloma/cyst, marked acute/chronic inflammation, reactive bone	(+)
Female	6/3/15	67	12	Periapical granuloma, marked chronic/acute inflammation	(-)

Female	5/28/15	61	14	Periapical scar, chronic inflammation, reactive bone	(-)
Female	5/26/15	59	18/19	Periapical Granuloma/Cyst, marked acute/chronic inflammation, reactive bone	(-)
Female	5/9/15	54	3	Periapical Granuloma/Cyst, acute/chronic inflammation	(+)
Female	4/23/15	64	29	Periapical Granuloma/Cyst, acute/chronic inflammation	(+)
Female	4/17/15	69	19	Periapical Granuloma, acute/chronic inflammation, “devitalized bone” dead bone	(-)
Female	4/14/15	61	2	Periapical Granuloma, acute/chroni inflammation, reactive bone	(-)
Female	3/21/15	73	10	Periapical Granuloma, acute/chronic inflammation	(-)
Female	3/19/15	68	10	Radicular (Periapical) Cyst, granulation tissue with fibrosis, acute/chronic inflammation, reactive bone	(-)
Male	3/10/15	35	19	Radicular (Periapical) Cyst, granulation tissue with fibrosis, acute/chronic inflammation	(-)
Female	2/2/15	69	Metal Implant #29/30 area -45 uA	Periapical granuloma (prei-implantitis, acute/chronic inflammation, reactive bone	(-)
Male	1/31/15	86	2	Radicular (periapical) cyst, acute/chronic inflammation, reactive bone	(+)
Female	1/29/15	69	5, 3	Reactive and Devitalized (dead) bone	(+)
Male	1/19/15	27	13	Periapical Granuloma, fibrosis, acute/chronic inflammation, reactive bone	(+)
Male	1/16.15	86	18	Periapical Granulma/Cyst, fibrosis, acute/chronic inflammation, reactive bone	(-)
Female	1/10/15	83	31	Periapical Granuloma/Cyst fibrosis, acute/chronic inflammation	(-)
Male	1/9/15	63	9	Periapical Granuloma/Cyst, fibrosis, acute/chronic inflammation	(+)
Female	1/6/15	71	7	Periapical Granuloma/Scar, fibrosis, acute/chronic inflammation	(-)
Female	12/22/14	70	3	Periapical Granuloma/Cyst, fibrosis, marked acute/chronic inflammation, reactive bone	(+)
Male	12/17/14	40	30	Periapical Granuloma/Cyst, Chronic inflammation, fibrosis, reactive bone	(-)

Female	12/17/14	43	19	Radicular (Periapical) Cyst, marked acute/chronic inflammation, fibrosis, granuloma	(+)
Female	12/7/14	70	15	Periapical Granuloma/Cyst, marked chronic and acute inflammation	(-)
Female	11/7/14	70	12	Periapical Granuloma, marked acute/chronic inflammation reactive bone	(-)
Female	11/5/14	73	3	Radicular Cyst (Periapical) acute/chronic inflammation, fibrosis, reactive bone	(+)
Male	10/7/14	65	Zirconia Implant Posts #18 and #19 area	Periapical Granuloma with pus, marked acute/chronic inflammation with fibrosis and reactive bone	(+)
Female	10/1/14	82	18	Periapical Granuloma with pus, marked acute/chronic inflammation with fibrosis and reactive bone	(-)
Male	9/26/14	65	Ziconia Implant Post #30 and #29 area	Periapical Granuloma, marked acute/chronic inflammation…	(+)
Male	8/21/14	70	Titanium Implant Posts # 9	Peridental Fibroma/Scar, chronic inflammation, dead bone	(-)
Male	8/14/14	51	14	Periapical Granuloma, acute/chronic inflammation, reactive bone	(-)
Female	8/14/14	66	29,31	Periapical Granuloma/Scar, Chronic Inflammation reactive bone	(-)
Male	8/8/14	70	14, 15, 16	Periapical Granulomas, marked acute/chronic inflammation, dead bone, fibrous tissue	(+)
Male	7/28/14	70	30	Periapical Granuloma, chronic inflammation, reactive bone	(-)
Female	6/26/14	23	9	Periapical Granuloma/Scar, Fibrosis, chronic inflammation with reactive bone	(-)
Female	6/22/14	77	4	Periapical Granuloma/Cyst, granulation/fibrous tissue, marked acute/chronic inflammation	(+)
Female	6/22/14	64	6	Periapical Scar, chronic inflammation, reactive bone	(-)
Female	6/16/14	80	14	Periapical Abscess/Granuloma, marked acute/chronic inflammation, Necrotic Bone	(+)
Female	6/16/14	80	12	Periapical Abscess/Granuloma, marked acute/chronic inflammation, Necrotic Bone	(+)
Male	6/12/14	34	29	Periapical Cyst/Granuloma, marked acute/chronic inflammation Reactive Bone	(-)

Female	6/5/14	66	3	Radicular Cyst (Periapical) marked acute chronic inflammation, granulation/fibrous tissue Osteonecrosis (dead bone)	(+)
Female	5/21/14	44	9	Periapical scar/fibrosis, reactive bone	(+)
Female	5/13/14	64	30	Focal Osteonecrosis, necrotic bone, reactive bone, squamous mucosa	(+)
Male	5/5/14	34	18	Periapical granuloma, chronic inflammation, fibrosis, reactive bone, degenerated bone (dead bone)	(-)
Female	4/22/14	59	18	Periapical granuloma/scar, mild chronic inflammation, reactive bone	(-)
Female	4/19/14	68	7	Radicular (Periapical) Cyst, granulation/fibrous tissue with marked acute and chronic inflammation, reactive bone	(+)
Male	4/7/14	47	14	Periapical Granuloma Cyst, granulation/fibrous tissue with marked acute/chronic inflammation,	(-)
				Dead Bone	
Female	4/4/14	64	3	Radicular Periapical Cyst, granulation/fibrous tissue, marked chronic/acute inflammation, Dead Bone	(-)
Female	4/4/14	49	14	Periapical Granuloma/Cyst, granulation/fibrous tissue with chronic inflammation	(-)
Female	3/21/14	42	10	Periapical Granuloma/Abscess, marked acute/chronic inflammation with fibrosis and granulation tissue, Dead bone, reactive bone consistent with “osteomyelitis”	(-)
Male	3/11/14	57	14, 15	Periapical Cyst/Granuloma, marked acute/chronic inflammation, Reactive Bone	(+)
Female	2/22/14	66	6	Periapical abscess/granuloma, marked acute/chronic inflammation, Partially dead and reactive bone	(+)
Male	2/4/14	70	18,19	Cystic Granuloma/marked acute- chronic inflammation, Reactive Bone	(-)
Female	1/24/14	43	10	Cystic Granuloma/tissue with marked inflammation, Chronic and Acute Reactive Bone	(-)
Male	1/14/14	61	4	Periapical scar/fibrosis, Osteonecrosis (Dead Bone) Patient has bowl cancer—this tooth #4 and two others #12 and #19 on the same meridian were root cadavers. CA dx 6mo ago	(+)
Male	1/13/14	63	29	Periapical granuloma/scar, A/C Inflam, dead dentine/cementum, numerous Actinomyces/Candida	(+) Candida 1st (Actinomyces)

Male	1/11/14	34	30	Periapical granuloma, A/C inflammation, Reactive bone, fibrosis	(-)
Female	12/7/13	44	2	Periapical abscess/scar Reactive/Necrotic(dead) bone and fibrous tissue	(+)
Female	11/21/13	66	28	Periapical granuloma/Scar Chronic inflammation, Reactive Bone	(-)
Male	11/11/13	26	10	Periapical granuloma (Fistula with pus) Marked A/C inflammation Reactive Bone	(-)
Female	10/7/13	53	19	Periapical granuloma/scar A/C Inflammation underlying fibrosis Reactive bone	(-)
Female	9/27/13	76	Titanium Implant Posts 18, 19, 20 with uA -26 and mV -265	Peri-implantitis/Osteosis Marked A/C Inflammation Reactive Bone	(+)
Female	9/24/13	53	18/19	Periapical Granuloma Scar Chronic Inflammation Devitalized (Dead) Bone	(-)
Female	9/9/13	37	30	Periapical Scar Chronic Inflammation Reactive Bone	(-)
Female	9/5/13	16	26	Periapical Granuloma Cyst Chronic Inflammation Devitalized (Dead) Bone Reactive Bone	(-)
Male	8/27/13	63	30	Periapical Abscess Granuloma Marked Acute/Chronic Inflammation Devitalized (Dead) Bone Reactive Bone	(-)
Female	8/19/13	80	2	Periapical Granuloma Chronic Inflammation Reactive Bone	(-)
Female 8/3/13		63	Implant Post #4 #6 (Titanium Metal) with -36 uA Current Density	Peri-implantitis/osteitis Chronic Inflammation Devitalized (Dead) Bone Reactive Bone	(+)

Female 7/31/13	58	30	Apical Osteitis Devitalized (Dead) Bone Reactive Bone	(-)
Female 7/11/13	63	5	Periapical Radicular Cyst Acute/Chronic Inflammation	(+)
Male 6/27/13	53	3	Periapical Granuloma Cyst Acute/Chronic Inflammation Reactive Bone	(-)
Female 6/19/13	63	14	Periapical Granuloma Cyst Marked Acute/Chronic Inflammation Reactive Bone	(+)
Female 6/18/13	56	32	Periapical Scar Chronic Inflammation Reactive Bone	(+)
Female 6/6/13	36	13	Periapical Scar Reactive Bone	(+)
Female 6/4/13	66	31	Radicular Cyst Marked Acute/Chronic Inflammation Reactive Bone	(-)
Female 4/8/13	40	18	Periapical Granuloma Chronic Inflammtion Reactive Bone	(-)
Female 5/8/13	59	30	Periapical Granuloma Chronic inflammation	(-)
Female 3/30/13	36	4	Periapical Granuloma Fibroma Chronic Inflammation	(-)
Female 3/28/13	69	31	Periapical Granuloma Fibroma Chronic Inflammation Reactive/Hyperostotic Bone	(+)
Female 3/8/13	61	3	Periapical Radicular Cyst Marked Acute/Chronic Inflammation Reactive Bone	(+)
Male 3/5/13	68	20	Periapical Scar, slight inflammation Devital (Dead) Bone	(+)
Male 2/23/13	72	Titanium Implant Post #14 Area -80uA	Granulation Tissue/Fibrosis Marked Acute/Chronic Inflammation Reactive Bone	(+)

Female 2/19/13	NG	21	Periapical Granuloma Marked Chronic Inflammation.	(-)
Female 2/11/13	76	19	Periapical Scar Slight Chronic Inflammation. Reactive Bone	(+)
Male 2/9/13	66	8	Periaipical Granuloma Scar Chronic Inflammation Reactive Bone	(-)
Female 1/31/13	NG	29	Periapical Granuloma Chronic Inflammation Reactive Bone	(-)
Male 1/22/13	82	8	Periapical Radicular Cyst Marked Acute/Chronic Inflammation	(+)
Female 1/14/13	64	14	Periapical Cyst Marked Acute/Chronic Inflammtion Reactive Bone	(+)
Female 12/12/12	56	14	Fibroma, Inflammation, Reactive Bone	(+)
Female 12/4/12	73	4/5	Inflammation and Reactive Bone	(-)
Female 12/4/12	49	3	Periapical Granuloma Cyst Marked A/C Inflammation Reactive Bone	(+)
Male 11/21/12	60	13	Periapical Granuloma A/C Inflammation Devital (Dead) Bone	(+) <Actinomy-ces>
Female 11/10/12	46	24/25	Periapical Granuloma A/C Inflammation Reactive Bone	(-)
Female 11/10/12	46	14	Periapical Granuloma A/C Inflammation Reactive Bone	(-)
Female 11/6/12	62	30	Periapical Granuloma Reactive Bone (Condensing Osteitis: (non-supurative Osteomyelitis)	(+)
Male 10/27/12	56	8	Periapical Granuloma Cyst Marked A/C Inflammation	(+)

Female 10/4/12	57	19	Periapical Cemento-osseous Dysplasia Immature bone/ cementum fibrous tissue	(-)
Male 9/27/12	66	5	Periapical Granuloma Marked A/C Inflammtion Devitalized (Dead) Bone	(-)
Female 9/11/12	55	4	Partially Devitalized Bone (Dead Bone) Marked Chronic Inflammation	(+)
Male 8/30/12	51	9	Periapical Granuloma Cyst Marked Acute/Chronic Inflammation	(-)
Female 8/6/12	60	19	Chronic Osteomyelitis Dead and Reactive Bone Chronic Inflammation	(-)
Male 7/20/12	58	30	Periapical Granuloma A/C Inflammation Reactive Bone	(-)
Male 7/20/12	58	7/8	Periapical Cyst Acute/Chronic Inflammation	(-)
Female 5/16/12	77	30	Periapical Granuloma Marked A/C Inflammation Reactive Bone	(+)
Male 5/17/12	60	19	Periapical Granuloma Abscess/ Marked Acute/Chronic Inflammation Reactive Bone	(-)
Male 5/11/12	31	30	Periapical Granuloma Marked A/C Inflammation	(-)
Male 5/2/12	35	18	Periapical Granuloma Scar Chronic Inflammation Reactive Bone	(-)
Female 4/10/12	51	20	Periapical Granuloma Marked Acute/Chronic Inflammation	(-)
Female 3/17/12	55	12	Periapical Scar Acute/Chronic Inflammation	(-)
Female 2/28/12	60	30	Periapical Scar Chronic Inflammation Reactive Bone	(+)
Female 2/28/12	60	3	Periapical Granuloma Chronic Inflammation Reactive Bone	(-)

Female 1/3/12	42	2	Periapical Radicular Cyst Marked Acute/Chronic Inflammation Reactive Bone	(-)
Male 8/17/11	40	8/9	Periapical Granuloma Marked Chronic Inflammation	(+)
Female 7/20/11	29	Vital #29 (Pl Test 7.5)	Periapical Grauloma Scar	(+)
Female 6/30/11	64	8/10	Periapical Granuloma Cyst Chronic Inflammation Reactive Bone	(-)
Female 5/4/11	31	4	Periapical Granuloma Scar Chronic Inflammation	(-)
Female 3/2/11	31	19	Periapical Granuloma Scar Granulation/Fibrous Tissue Chronic Inflammation	(-)
Male 11/2/10	68	3	Periapical Granuloma Acute/Chronic Inflammation Reactive Bone	(+)
Male 8/13/10	75	30	Periapical Granuloma Marked Acute/Chronic Inflammation	(+)
Female 8/6/10	60	Titanium Implant #12 and #13	Periapical Granuloma (Fibrous Tissue) with marked acute/chronic inflammation. Dead Bone, reactive bone.	(-)
Female 8/4/10	66	28/29	Periapical Granuloma Marked Acute/Chronic Inflammation Reactive Bone	(-)
Female 4/23/10	51	3	Periapical Granuloma Acute/Chronic Inflammation	(-)
Male 4/15/10	56	20	Periapical Granuloma Scar Chronic Inflammation	(-)
Male 2/24/10	48	21	Periapical Scar Chronic Inflammation	(-)
Male 1/19/10	48	29/30	Periapical Granuloma marked Acute/Chronic Inflammation Reactive Bone	(+)
Female 1/4/10	55	14/15	Periapical Granuloma Chronic Inflammation Reactive Bone	(-)

Female 1/4/10	61	4	Periapical Granuloma Scar Chronic Inflammation	(-)
Female 7/3/09	46	7	Periapical Marked Acute Chronic Inflammation reactive bone	(+)
Female 7/16/09	60	10	Periapical Granuloma Cyst Chronic inflammation Reactive Bone	(-)
Female 7/7/09	33	3	Periapical Granuloma Scar Reactive Bone	(-)
Male 7/2/09	58	9	Radicular Periapical Cyst Acute/Chronic Inflammation	(+)
Female 6/19/09	75	31	Periapical Granuloma Cyst Acute/Chronic Inflammation	(+)
Male 6/9/09	69	8,9,10, 11	Periapical Granuloma Cyst Reactive bone	(+)
Male 5/30/09	50	8	Periapical Granuloma, Marked A/C Inflmmation Reactive Bone	(-)
Female 5/27/09	46	15	Periapical Granuloma/Scar Reactive Bone	(-)
Male 5/20/09	55	3	Periapical Granuloma Moderate Chronic-Inflammation	(+)
Female 5/13/09	64	20	Periapical Granuloma Marked A/C Inflammation	(-)
Female 4/10/09	38	18	Periapical Granuloma-Abscess Marked A/C Inflmmation	(-)
Female 2/26/09	60	18/19	Periapical Granuloma with Osteonecrosis (dead bone)	(+) (Fossamax Person)
Female 2/13/09	63	3	Periapical Granuloma Marked A/C Inflammation	(-)
Female 12/13/08	56	9/11	Periapical Granuloma/Scar Chronic Inflammation	(-)
Female 12/9/08	70	5	Radicular Cyst Periapical Marked AC Inflammation	(-)

Male 12/9/08	63	5	Periapical Granuloma/Cyst Marked A/C Inflammation	(-)
Female 10/6/08	34	3	Periapical Granuloma/Cyst Chronic Inflammation	(+)
Female 10/1/08	51	30	Periapical Granuloma/Scar Reactive Bone	(-)
Female 9/13/08	60	29/30	Thickened partially devitalized bone and granulation tissue (granuloma)	(-)
Male 8/11/08	29	28	Chronic inflammation Periapical Granuloma	(+)
Male 8/11/08	29	8,9	Chronic inflammation/Periapical Granuloma/Scar	(-)
Female 7/14/08	56	3	Acute and Chronic inflammation with Fibrosis and Granulation Tissue	(-)
Female 7/8/08	54	19	Cystic Ameloblastoma Fibrosis and Inflammation	(-)
Female 6/21/08	66	9	Fibrosis, Periapical Scar	(+)
Female 6/18/08	49	7/9	Periapical Granuloma/Scar Chronic inflammation	(+)
Female 6/2/08	55	4	Periapical Granuloma	(-)
Male 4/22/08	58	9	Apical Fibrosis/Scar	(-)
Female 3/19/08	63	8, 6	Periapical granuloma/cyst marked chronic inflammation	(+)
Female 1/22/08	63	14	Periapical Scar (Fibrosis) with focal bacteria	(+)
Female 1/9/08	50	19	Periapicl Granuloma/Cyst, acute/chronic inflammation	(-)
Male 12/5/07	45	5	Granulation tissue/Cyst, chronic inflammation	(-)
Female 12/1/07	34	8/9	Granualtion tissue, marked inflammation, fibrosis	(-)

Female 12/1/07	56	12/13	Granulation tissue, partially devitalized bone, chronic inflammation	(+)
Female 11/9/07	68	13	Periapical Scar/Granuloma chronic inflammation	(+)
Female 11/1/07	70	28/29	Fragments of reactive focally necrotic bone, fibrosis, chronic inflammation	(-)
Male 12/5/07	53	31	Periapical Granuloma/Cyst marked acute/chronic inflammation	(-)
Male 9/27/07	64	14	Radicular Cyst (Periapical) marked acute/chronic inflammation	(+)
Male 9/18/07	64	19	Periapical Abscess/Granuloma	(+)
Male 8/24/07	42	2	Periapical Granuloma/Cyst chronic inflammation and reactive bone changes	(-)
Male 8/13/07	74	19	Periapical Granuloma marked acute chronic inflammation	(+)
Male 8/13/07	74	2	Periapical Granuloma marked acute chronic inflammation	(-)
Male 8/13/07	74	30	Periapical Granuloma marked acute chronic inflammation	(-)
Female 5/23/07	51	4	Periapical Granuloma/Cyst marked acute/chronic inflammation	(+)
Male 5/12/07	62	18	Periapical Granuloma marked acute/chronic inflammation	(-)
Female 5/16/07	62	Titan Implant 6	Peri-implantitis, Granulation and Fibrosis, Chronic inflammation, Reactive Bone	(+)
Female 4/10/07	32	14	Periapical Granuloma/Scar, chronic inflammation	(+)
Female 3/31/07	59	2	Periapicl Granuloma, marked acute/chronic inflammation	(+)
Female 2/1/07	49	29	Periapical Granuloma, marked acute/chronic inflammaton	(+)
Female 7/3/06	59	Titan Imp #8	Granulation tissue, fibrosis, Chronic inflammation	(-)

Female 5/19/06	62	4	Periapical Granuloma/ Chronic inflammation	(+)
Female 5/15/06	30	9&10	Periapical Abscess/Granuloma Marked Acute/Chronic inflammation	(+)
Female 4/11/06	52	24	Apical Periodontitis/Granulation Tissue with Chronic Inflammation.	(-)
Male 4/1/06	57	31	Periapical Granuloma/Scar—Reactive Bone Changes, Chronic Inflammation.	(-)
Female 2/28/06	42	31, 32	Periapical Granuloma and Cyst—Reactive Bone Changes— Marked Acute/Chronic Inflammation.	(-)
Female 2/23/06	42	18, 20	Periapical Granuloma/Scar Marked Chronic/Acute Inflamm— Reactive Bone Changes.	(-)
Female 2/15/06	42	15	Periapical Granuloma/Scar—Reactive Bone Changes	(-)
Female 1/26/06	42	2	Periapical Granuloma with Chronic Inflamm. And Reactive Bone Changes.	(-)
Male 1/25/06	60	19	Periapical Abscess/Granuloma & Reactive Bone Changes	(+)Actinomyces
Female 12/19/05	88	24,25	Granulation Tissue/ Fibrosis with acute/chronic inflamm.	(+)Actinomyces
Female 12/15/05	45	12	Radicular Cyst (Periapical)	(-)
Male 11/8/05	83	19	Periapical Scar	(+)Actinomyces
Female 10/11/05	57	5	Periapical Granuloma/Cyst	(-)
Female 10/10/05	62	9,10	Periapical Granuloma/Cyst	(-)
Female 8/9/05	71	Titan Implant 11,12	Peri-mplant mucositis, chronic acute inflammation, inflamed granulation tissue(granuloma) Reactive Bone Changes	(-)
Female 7/31/05	54	15	Periapical Granuloma Reactive Bone changes	(-)

Female 7/26/05	64	10	Periapical Granuloma/Cyst	(-)
Female 7/24/05	62	19	Periapical Granuloma/Cyst	(-)
Male 7/16/05	81	5	Granuloma/Scar	(+)Actinomyces
Female 7/06/05	52	9,10	Periapical Granuloma/Cyst Reactive bone	(-)
Male 6/27/05	74	Titan Implant 17, 18	Peri-implantitis, Chronic inflammation, Granulation tissue Reactive Bone	(-)
Female 6/16/05	57	4, 5, 3	Fibrosis and Chronic Inflammtion	(-)
Male 5/18/05	67	4	Periapical Granuloma/Cyst	(-)
Male 5/10/05	73	19	Fibro-Granuloma	(+) Actinomyces
Male 4/4/05	73	29	Periapical Granuloma Fibrosis, Chronic Inflammation	(+) Actionmyces
Male 4/4/05	74	Titan Implant 30, 31	Peri-implantitis, Chronic inflammation and fibrosis, hyperostotic bone	(+) Actionmyces
Male 3/21/05	54	Titan Implant 20	Peri-implantitis, Chronic acute inflammation Reactive Bone	(+) Actionmyces
Male 3/16/05	56	4	Periapical Granuloma	(-)
Female 2/15/05	41	3	Radicular Cyst	(+)Actinomyces
Female 2/12/05	61	8,10	Periapical Granulomas	(+)Actinomyces
Male 2/07/05	56	6	Periapical Granuloma	(-)
Female 1/26/05	69	4	Periapical Granuloma	(+)Actinomyces

Female 1/24/05	42	14	Periapical Granuloma	(+)Actinomyces
Female 1/20/05	56	18	Radicular Cyst	(+)Actinomyces
Male 11/27/04	54	9	Chronic Inflammation, Fibrosis, Granulation tissue (granuloma)	(-)
Male 11/20/04	56	5	Apical Periodontitis	(-)
Female 8/31/04	51	9	Periapical Granuloma	(+) Actinomyces
Female 8/16/04	54	3	Periapical Granuloma	(-)
Female 8/16/04	54	30	Periapical Granuloma	(-)
Female 8/04/04	48	19	Periapical Abscess	(+) Actinomyces
Male 7/22/04	45	3	Radicular Cyst Reactive bone	(+) Actinomyces
Female 7/17/04	19	19	Periapical Granuloma	(-)
Female 7/12/04	55	30	Periapical Granuloma	(-)
Male 5/03/04	50	10	Periapical Scar/Fibroma	(-)
Female 4/12/04	65	7	Racicular Cyst reactive bone	(+) Actinomyces
Female 1/02/04	61	30	Apical Periodontitis reactive bone	(+) Actinomyces
Male 12/23/03	55	2	Periapical Granuloma	(-)
Female 10/31/03	32	12	Periapical Granuloma/Cyst	(-)
Female 10/18/03	53	20	Periapical Granuloma/Scar	(-) Biocalex Filled Endo
Female 9/30/03	62	13	Periapical Granuloma/Cyst	(-)

Female 9/19/03	39	14	Aperapical Granuloma Periapical periodontitis	(-)
Female 8/18/03	69	9	Periapical Granuloma	(-)
Male 7/30/03	44	9	Periapical Granuloma	(-)
Female 7/11/03	42	7, 8, 9, 10	Periapical Granulomas	(+) Actinomyces
Male 6/06/03	38	25	Periapical Granuloma (Chron. Api. Periodon.)	(-)
Female 6/06/03	66	18	Radicular(Periapical) Cyst	(+) Actinomyces
Male 6/04/03	75	7	Devitalized Bone and Fibrosis	(-)
Female 4/01/03	61	20	Apical Fibrosis	(+)Actiino-myces
Female 3/18/03	37	20	Periapical Granuloma/Cyst	(+)Actinomy-ces
Male 3/17/03	66	9	Periapical Granuloma scar	(+)Actinomy-ces
Female 2/18/03	61	4	Periapical Granuloma	(+)Actinomy-ces
Female 2/04/03	80	9	Radicular (Periapical) Cyst	(+)Actinomy-ces
Male 9/11/02	50	18	Radicular (Periapical) Cyst	(-)
Female 8/08/02	73	19	Periapical Abscess/Cyst	(-)
Female 6/22/02	69	28, 29, 30	Periapical Granulomas	(-)
Female 6/17/02	53	28	Periapical Granuloma with Foreign body mat.	(-)
Male 6/15/02	75	13, 15	Radicular (Periapical) Cyst	(+) Actinomyces

Female 6/04/02	73	11	Periapical Granuloma/Cyst	(-)
Female 6/04/02	75	19	Periapical Granuloma/Scar	(-)
Female 5/22/02	65	20	Periapical Granuloma/Cyst reactive bone changes	(-)
Female 5/07/02	54	15	Radicular (Periapical) Cyst	(+) Actinomyces
Male 5/06/02	43	14, 30	Periapical Granulomas (Devitalized— Dead—Bone)	(+) Actinomyces
Female 2/02/02	55	18	Periapical Granuloma	(-)
Male 12/03/01	61	2	Fibrosis, Granulation and Chronic Inflamm.	(-)
Male 10/30/01	43	2	Radicular Cyst and Necrotic Bone	(-)
Female 9/29/01	55	Titan Imp #30 #31	Periapical Granuloma, Dead Bone, Chronic inflammation	(-)
Male 9/04/01	62	18	Periapical Granuloma (RBChanges)	(+) Actinomyces
Female 8/31/01	54	14	Periapical Granuloma and Dead Bone	(-)
Male 8/27/01	51	3	Periapical Granuloma and RBChanges	(+) Actinomyces
Female 8/01/01	31	10	Periapical Granuloma/Cyst	(+) Actinomyces
Male 7/30/01	58	18	Periapical Abscess/Granuloma (RBChanges)	(-)
Female 6/27/01	58	7, 9	Periapical Granuloma/Cyst with marked acute/chronic inflammation and Necrotic Bone	(+) Actinomyces
Female 5/16/01	46	9	Periapical Granuloma and Devitalized (Dead) Bone	(+) Actinomyces
Male 4/30/01	51	4	Periapical Granuloma/Cyst	(+) Actinomyces
Female 4/19/01	31	14	Periapical Granuloma with Reactive Bone changes.	(-)
Female 3/20/01	47	5	Periapical Granuloma	(-)

Female 3/14/01	54	19	Periapical Granuloma/Scar	(-)
Female 3/13/01	50	14	Radicular (Periapical) Cyst	(+) Actinomyces
Female 3/12/01	53	13	Periapical Granuloma/Cyst	(+) Actinomyces
Female 3/10/01	78	4	Periapical Granuloma Cyst Chronic inflammation Devital (Dead) Bone	(+) Actinomyces
Female 3/10/01	78	Titanium Post #3	Peri-implantitis Osteitis, Chronic Inflammation granulation tissue/fibrosis Devital (Dead) Bone	(+) Actinomyces
Female 2/26/01	53	4	Periapical Abscess/Granuloma	(+)Actinomyces
Female 2/26/01	50	29	Necrotic Bone Inflam. Granulation tissue/fibrosis	(-)
Female 2/17/01	50	3,4	Periapical Granuloma/Cyst	(+) Actinomyces
Female 6/8/99	22	Titanium Implant # 7	Peri-implantitis, Chronic inflammation, Reactive epithelial changes parakaratosis and acanthosis reactive bone	(-)
Female 4/7/99	53	10	Periapical Granuloma/Scar with chronic inflammation	(-)
Female 3/1/99	33	14	Periapical Abscess and Granuloma marked acute/chronic inflammation with fibrosis	(-)
Male 6/3/96	38	9	Chronic Osteomyelitis with focal chronic inflammation, Reactive bone and Osteonecrosis	(-)
Male 3/6/96	37	19	Chronic Osteomyelitis with focal chronic inflammation, fibrosis, Osteonecrosis/Reactive bone Consistent with Osteomyelitis	(-)
Male 5/30/95	56	7,8,9,10	Marked chronic acute inflammation, Reactive bone	(-)
Female 5/23/95	35	8	Periapical Abscess and Granuloma marked acute chronic inflammation	(-)
Male 4/29/89	31	8	Chronic Periodonal abscess Chronic inflammation and Fibrosis	(-)

Male 10/8/87	40	9	Periapical granuloma/ Chronic inflam cells infil	(-)
Female 8/1/87	32	19	Chronic Periapical Abs. Chronic Osteomyelitis	(-)
Male 5/2/87	37	24	Periodontal fibrosis, Chronic Osteomyelitis	(-)
Male 1/31/87	42	4	Periapical granuloma, Chronic osteitis	(-)
Female 12/3/86	?	14	Chronic Osteitis, dental Fibroma	(-)
Gender	Age	Tooth	Pathology	Bacteria

missing teeth, with patents issued in November 1999 and October 2001.

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