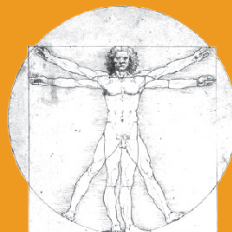


European Journal of Musculoskeletal Diseases



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Letter to the Editor

AESTHETIC DENTISTRY: ADVANCEMENTS, TECHNIQUES, AND FUTURE DIRECTIONS

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ABSTRACT

Aesthetic dentistry, commonly referred to as cosmetic dentistry, refers to dental procedures that primarily focus on improving the appearance of the teeth, gums, and smile. The aim is not only to enhance function and health but also to meet the growing desire for a more aesthetically pleasing appearance. Historically, dental treatments were concerned solely with functional repair and health maintenance; however, in recent years, advancements have brought aesthetics to the forefront of dental practice. As the demand for procedures such as teeth whitening, veneers, crowns, and orthodontics continues to rise, the role of aesthetic dentistry in enhancing self-esteem and quality of life has become more evident.

KEYWORDS: *dentistry, oral medicine, aesthetic dentistry*



Review

APPLICATIONS OF POLYMERASE CHAIN REACTION (PCR). NEW DIAGNOSTIC APPROACH IN DENTISTRY

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ABSTRACT

Polymerase Chain Reaction (PCR) is a widely used molecular biology technique that has revolutionized the field of medical diagnostics, including dentistry. By enabling the amplification of minute quantities of genetic material, PCR offers unprecedented sensitivity and specificity in detecting a range of oral diseases, from bacterial and viral infections to genetic disorders. This paper reviews the applications of PCR in dentistry, mainly focusing on its role in detecting periodontal pathogens, oral cancers, and genetic mutations. Additionally, we discuss the potential and challenges of integrating PCR into routine clinical practice in dental settings.

KEYWORDS: PCR, dentistry, periodontal disease, oral cancer, genetic disorders, diagnostics, molecular biology



Review

IMPLANT DENTISTRY: AN OVERVIEW OF CURRENT PRACTICES, ADVANCEMENTS, AND FUTURE TRENDS

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ABSTRACT

Over the past few decades, implant dentistry has revolutionized the management of edentulism and tooth loss, offering patients improved aesthetics, function, and quality of life. This paper provides a comprehensive review of implant dentistry, covering its historical development, key technological advancements, clinical techniques, and future directions. Topics explored include the materials and design of dental implants, osseointegration, surgical protocols, and post-operative care. The growing emphasis on personalized treatment plans, the integration of digital technologies, and advancements in biomaterials suggest a promising future for implant dentistry. Moreover, challenges related to patient selection, long-term outcomes, and cost-effectiveness are also addressed, to provide a balanced perspective on the current landscape and future trends in the field.

KEYWORDS: *dentistry, implant dentistry, oral surgery, oral medicine, osseointegration*



Letter to the Editor

MOLECULAR BIOLOGY IN DENTISTRY: REVOLUTIONIZING DIAGNOSIS, TREATMENT, AND PREVENTION

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ABSTRACT

Molecular biology has emerged as a transformative field in dentistry, providing insights into the genetic, molecular, and cellular mechanisms underlying oral diseases and enabling advancements in diagnostics, treatment strategies, and preventive care. Dentistry has traditionally relied on clinical observations, radiographic imaging, and histopathological techniques for diagnosing and treating oral diseases. However, with the advancement of molecular biology, there has been a paradigm shift towards understanding the underlying genetic and molecular mechanisms that contribute to oral health and disease. Molecular biology techniques, such as genomics, proteomics, transcriptomics, and metabolomics, enable dental professionals to identify molecular signatures associated with various oral diseases, predict individual responses to treatments, and tailor interventions to the genetic profile of patients.

KEYWORDS: *molecular biology, dentistry, oral diseases, personalized treatment, genetic testing, oral cancer, regenerative medicine, pharmacogenomics, nanotechnology*

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Review

ORAL MEDICINE: NEW PERSPECTIVES AND FUTURE ADVANCEMENTS

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ABSTRACT

Oral medicine is a specialized branch of dentistry and medicine that focuses on the diagnosis, prevention, and treatment of oral health disorders that have a systemic origin or impact. This paper examines recent developments in oral medicine, highlighting the integration of multidisciplinary approaches for managing complex oral conditions. The review highlights novel diagnostic techniques, the role of genetic and molecular research, and the evolving treatment options for various oral diseases. Furthermore, the importance of patient-centered care, public health implications, and future directions in the field are discussed.

KEYWORDS: *oral medicine, systemic diseases, diagnostics, oral health, autoimmune disorders, oral cancer, treatment advances*



Letter to the Editor

MYOSITIS OSSIFICANS: A LITERATURE REVIEW

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ABSTRACT

Myositis ossificans (MO) is a relatively uncommon medical condition characterized by the abnormal formation of heterotopic bone within muscle tissue. While the exact prevalence of MO is challenging to determine due to its rare occurrence and underreporting, it is generally considered an infrequent phenomenon. MO is primarily associated with trauma or injury to muscle tissue. Incidence rates vary, and the condition is often seen in the context of sports-related injuries, contusions, and surgical procedures.

KEYWORDS: *Myositis, ossification, muscle, bone, trauma*



Review

BRITTLE BONE DISEASE: A NARRATIVE REVIEW

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ABSTRACT

Brittle bone disease, also known as osteogenesis imperfecta (OI), is a rare genetic disorder characterized by fragile bones that are prone to fractures. This condition results from a defect in the production of collagen, a protein that provides strength and flexibility to bones. Osteogenesis imperfecta can range in severity from mild to severe, and symptoms can vary widely among individuals. Key features of brittle bone disease include bone fragility, blue sclera, short stature, deformities, loose joints, muscle weakness and dental issues. OI is primarily caused by mutations in genes responsible for the production of type I collagen. There is currently no cure for OI, but treatment focuses on managing symptoms and preventing complications. Management and outcomes vary depending on the severity of the condition and individual factors. Genetic counseling is often recommended for affected individuals and their families to understand the inheritance pattern and make informed decisions.

KEY WORDS: *brittle, bone, disease, osteogenesis, imperfecta*



Letter to the Editor

BONE TRAITS IN KLIPPEL-FEIL SYNDROME

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ABSTRACT

Klippel-Feil Syndrome (KFS) is a rare congenital disorder first described by Maurice Klippel and André Feil in 1912. It is characterized by the fusion of two or more cervical vertebrae, leading to restricted neck mobility, congenital anomalies of the cervical spine, and a range of associated clinical manifestations. KFS is known to be a genetically heterogeneous disorder, and its exact etiology remains under investigation. Current estimates suggest that KFS occurs in 1 out of every 40,000 live births, making it a relatively rare condition.

KEYWORDS: *Klippel-Feil syndrome, cervical vertebrae, bone, skeletal abnormalities*



Letter to Editor

ALPORT SYNDROME

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ABSTRACT

Alport syndrome is a genetic disorder characterized by kidney disease, hearing loss, and often, eye abnormalities. It is primarily caused by gene mutations encoding type IV collagen, a crucial component of basement membranes in the kidneys, ears, and eyes. The disorder is named after Dr. Cecil Alport, who described it in 1927. The kidney manifestations of Alport syndrome typically involve progressive damage to the glomeruli. This can lead to blood and protein in the urine, high blood pressure, and end-stage renal disease. The severity of kidney involvement can vary, with some individuals experiencing milder symptoms while others progress to kidney failure. Hearing loss is another common feature of Alport syndrome, often manifesting as sensorineural hearing impairment. This hearing loss can be present from childhood or develop later in life. Additionally, eye abnormalities, such as lens dislocation and cataracts, may occur in some individuals.

KEYWORDS: *Alport syndrome, kidney disease, ears, eyes, disorders*

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Review

OLLIER'S DISEASE

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ABSTRACT

Ollier's disease (OD), also known as enchondromatosis, is a rare skeletal disorder characterized by the presence of multiple enchondromas within the bones. This condition was first described by Louis Xavier Edouard Ollier in the 19th century. Despite its rarity, OD can significantly impact an individual's musculoskeletal system, leading to deformities, limb length discrepancies, and other complications. This paper aims to provide a thorough overview of Ollier's disease, covering its etiology, clinical manifestations, diagnostic approaches and treatment options.

KEYWORDS: *Ollier, disease, enchondromatosis, dyschondroplasia, bone, cartilage*



Letter to the Editor

BONE TRAITS IN VON RECKLINGHAUSEN DISEASE

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ABSTRACT

Neurofibromatosis Type 1 (NF1), commonly referred to as von Recklinghausen disease, exemplifies the complexity of genetic disorders. First meticulously characterized by the German pathologist Friedrich Daniel von Recklinghausen in the 19th century, this condition has since become a focal point of medical research and clinical scrutiny. NF1 is a neurocutaneous disorder characterized by the development of benign nerve sheath tumors, known as neurofibromas, among a range of other clinical manifestations that affect multiple organ systems. Rooted in a genetic mutation on chromosome 17, the NF1 gene's intricacies orchestrate a cascade of cellular events that culminate in a spectrum of clinical features, ranging from dermatological signs to neurological and orthopedic complications.

KEYWORDS: *von Recklinghausen disease, neurofibromatosis type 1, neurocutaneous disorders*

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