Press release

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Basic information

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Department of: Dentistry

Main supervisor: Lene Baad-Hansen

Title of dissertation: "Trigeminal nerve damage: somatosensory and psychophysical aspects in patients and human experimental surrogate models"

Date for defence: 9th August 2019 at (time of day): 2 pm Place: Auditorium 3, Buidling 1613, Room 111, Vennelyst Boulevard 9, Department of Dentistry and Oral Health, Aarhus University, Aarhus C 8000

Press release (Danish)

Ny viden om nerveskader i mund og ansigt

Et nyt ph.d. projekt fra Health, Aarhus Universitet, bidrager med ny viden om føleforstyrrelser og påvirkning af livskvalitet hos patienter med nerveskader i mund og ansigt. Studierne er udført af Rajath Pillai, som forsvarer sin afhandling d. 9. august 2019

Ansigtets følenerve, n. trigeminus, er medansvarlig for ansigtets følesans og risikerer at blive beskadiget, ikke kun ved slag og uheld, men også under tandlægelig eller kirurgisk behandling. En sådan nerveskade kan føre til føleforstyrrelser, og der kan i visse tilfælde deslige være nervesmerter. Der findes ikke i dag en gylden standard for, hvorledes nervesmerter diagnosticeres, selvom det er anerkendt, at en grundig gennemgang af patientens sygehistorie i kombination med klinisk undersøgelse og specialiserede tests bidrager til en sikker diagnose. Det er også vigtigt at vurdere patientens psykosociale status og nerveskadens påvirkning af livskvaliteten for at forstå den samlede byrde, en patient med nerveskade i mund og ansigt oplever.
Føleforstyrrelser efter nerveskade i mund og ansigt blev i dette projekt vurderet med et omfattende batteri af tests. Identiske teknikker blev anvendt til at undersøge raske forsøgspersoner under påvirkning af eksperimentelt fremkaldte symptomer på nerveskade, herunder nedsat følesans udløst af lokalbedøvelse og brændende smerter udløst af capsaicin (den stærke komponent i chili). Forsøgsdeltagernes psykosociale status og livskvalitet blev ligeledes vurderet ved hjælp af spørgeskemaer. Afhandlingen dokumenterer betydelige variationer i føleforstyrrelser og smerter hos patientgruppen og konkluderer endvidere, at eksperimentelle modeller kan imitere symptomer på nerveskade hos raske forsøgspersoner. Endeligt blev det vist, at patienter med nerveskade i und og ansigt har dårligere psykosocial status og livskvalitet end raske.
Forsvaret af ph.d.-projektet er offentligt og finder sted den 9/8 kl. 14 i auditorium 3, Institut for Odontologi og Oral Sundhed, Aarhus Universitet, Vennelyst Boulevard 9, Aarhus. Titlen på projektet er ”Trigeminal nerve damage: somatosensory and psychophysical aspects in patients and human experimental surrogate models”. Yderligere oplysninger: Ph.d.-studerende Rajath Pillai, e-mail: raj.pillai@dent.au.dk, tlf. +4550188248.

Bedømmelsesudvalg:
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Press release (English)

New knowledge on nerve injury in the mouth and face

A new project from Health, Aarhus University works towards better understanding of sensory changes and psychosocial burden caused by nerve damage to the face. The studies were carried out by Rajath Pillai, who is defending his dissertation on August 9, 2019.

The sensory nerve of the mouth and face, the trigeminal nerve, is responsible for sensations from the face and is at risk of injury not only from facial trauma, but also during dental and surgical treatments. The resulting damage may lead to sensory disturbances, with or without associated pain. Although no gold standard exists for diagnosis of pain from trigeminal nerve damage, a thorough history followed by bedside and laboratory investigations may help towards making a diagnosis of 'definite' nerve damage pain. Also, assessment of the psychosocial status of the affected patients may help us to better understand the burden of trigeminal nerve damage.

With the use of an exhaustive battery of tests, sensory changes caused by trigeminal nerve damage in patients and in healthy volunteers in whom experimental models of such damage using capsaicin (the stuff that makes pepper hot) and local anaesthetics applied to the skin of the face, was recorded. The psychosocial status of the study participants was also recorded. The thesis reports the varied sensory changes seen in the patients and the ability of the multiple experimental models to mimic some of these changes. The psychosocial status of the patients was also shown to be poorer than healthy volunteers.

The defence is public and takes place on August 9 at 2 pm in Auditorium 3, building 1613, room 111, Vennelyst Boulevard 9, Department of Dentistry and Oral Health, Aarhus University, Aarhus C 8000. The title of the project is "Trigeminal nerve damage: somatosensory and psychophysical aspects in patients and human experimental surrogate models". For more information, please contact the PhD student Rajath Pillai, email at raj.pillai@dent.au.dk, Phone +4550188248.

Assessment committee:

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