examined, and von Kossa staining was carried out in the presence of ascorbic acid and β -glycerophosphate in an *in vitro* calcification assay. We established 3 pulp cell lines (KN-1, -2, and -3) showing high levels of ALP activity. In the calcification assay, these cell lines showed high levels of calcification by von Kossa staining. These results suggest that KN cell lines that were established from rat incisor dental pulp exhibit the phenotypes of odontoblasts.

P-16. 80歳高齢住民の高次生活活動能力と4年死亡率との関係

高齢者の死亡率と生活活動能力

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80歳高齢住民の高次生活活動能力と4年間追跡死亡率との関連を検討した。80歳福岡県住民1282名中、高次生活活動能力調査、口腔・全身診察、血液検査を受けた697名（男277、女420名）を対象として、健診後4年間の生命予後調査を行った。高次生活活動能力は13項目の活動能力指標（手段的自立5項目、状況対応4項目、社会的役割4項目）を質問していくつ可能かで判断した。4年間の追跡期間中に107名（男58、女49名：心血管病死27名、癌死27名、肺炎死22名、その他31名）が死亡した。コックスの比例ハザード回帰モデルを用いて性差、喫煙、飲酒、BMI、血圧、血清コレステロール値、血糖値で補正して死亡と活動能力の関係を解析した。全活動能力と状況対応能力がそれぞれ1項目増加すると、全死亡率が8%（ $P=0.035$ ）と36%（ $P<0.001$ ）減少、心血管病死は14%（ $P=0.039$ ）と43%（ $P=0.002$ ）減少した。肺炎死は状況対応能力が1項目増加すると43%（ $P=0.01$ ）減少した。癌死と各種活動能力指標には関係がなかった。手段的自立と社会的役割の活動能力指標はいずれの死亡にも関連が認められなかった。80歳高齢住民では高次生活活動能力のなかでも特に状況対応能力が全死亡、心血管病死、肺炎死と良好な関係が認められ、これらの死亡の独立した予測因子であることが示唆された。

High-level functional abilities capacity and 4-year mortality in an 80-year-old population: mortality and adl in the elderly

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Little is known about the relationship between high-level functional abilities and mortality in elderly people. We evaluated the relationship between high-level functional abilities, such as intellectual activity and social roles, and 4-year mortality in a population of 80-year-old community residents. Participating in the study were 697 individuals (277 males and 420 females) from 1282 80-year-old individuals residing in Fukuoka Prefecture, Japan. To measure high-level functional capacity, the daily activities of 656 of the 697 participants were examined through questionnaires, accompanied by physical and laboratory blood examinations. For four years after the baseline examination, the 697 participants were followed up. For subjects who died during that period, the date and cause of death were recorded from resident registration cards and official death certificates. The relative risk for all-cause mortality decreased with an increase in intellectual activity or total functional abilities, while there was no association between total mortality and ability to perform instrumental self-maintenance or a social role. Similarly, the relative mortality risk due to cardiovascular diseases decreased with an increase in intellectual activity or total functional capacity. Mortality due to pneumonia also decreased with an increase in intellectual activity. In a population of 80-year-old community residents, intellectual abilities and total functional abilities may be associated with all-cause, cardiovascular, and pneumonia mortality, and may be strong predictors of survival rate.