

ABSTRAK

Chriswanto, Alexander Widya. 2013. **Hubungan Antara Ekspresi Protein FGF-2 (Fibroblast Growth Factor-2) Dan p38 MAPK (Mitogen-Activated Protein Kinase) Pada Kejadian Bibir Sumbing Ras Protomalayid Di Provinsi Nusa Tenggara Timur.** Tugas Akhir, Program Studi Pendidikan Dokter, Fakultas Kedokteran, Universitas Brawijaya. Pembimbing : (1) dr. Herman Yosef L. W., Sp. BP, (2) dr. Hidayat Sujuti, Sp. M, Ph. D.

Bibir sumbing, merupakan kelainan sejak lahir, dengan penyebab yang multifaktorial. Salah satu faktor penyebabnya, adalah faktor genetik yang berkaitan dengan gangguan protein yang menyebabkan proses proliferasi sel yang tidak normal. Protein FGF-2 (*Fibroblast Growth Factor-2*), dan p38 MAPK (*Mitogen-Activated Protein Kinase*) adalah protein yang memiliki peran yang sinergis dalam proses proliferasi sel. Tujuan penelitian ini adalah untuk mengetahui adanya hubungan antara ekspresi protein FGF-2 dan p38 MAPK pada kejadian bibir sumbing. Penelitian ini menggunakan desain penelitian *Cross Sectional Analytic*. Sampel penelitian, adalah jaringan bibir sumbing hasil operasi tim bedah plastik, Rumah Sakit Saiful Anwar Malang, pada kegiatan bakti sosial pada tanggal 3, 6, 7, 8 dan 12 Desember 2012, di RSUD Larantuka, RSUD Kupang, dan RSUD Alor, Provinsi Nusa Tenggara Timur, yang memenuhi kriteria inklusi eksklusif. Jaringan bibir, dilakukan pewarnaan imunohistokimia, dengan Antibodi Monoklonal FGF-2, dan Antibodi Monoklonal p38 MAPK, setelah itu diperiksa dibawah mikroskop cahaya, dengan menghitung jumlah sel fibroblas yang mengekspresikan protein tersebut. Analisis korelasi, antara ekspresi protein FGF-2 dan p38 MAPK diuji dengan uji *Pearson*. Hasil penelitian menunjukkan adanya hubungan yang bermakna antara ekspresi protein FGF-2 dan p38 MAPK dengan koefisien korelasi yang cukup kuat (0.369). Kesimpulan dari penelitian ini, adalah terdapat hubungan yang bermakna dengan koefisien korelasi yang cukup kuat, antara ekspresi protein FGF-2 dan p38 MAPK pada kejadian bibir sumbing ras *Protomalayid* di Provinsi Nusa Tenggara Timur.

Kata Kunci : protein FGF-2, protein p38 MAPK, bibir sumbing.

ABSTRACT

Chriswanto, Alexander Widya. 2013. **Correlation Between Expression Of FGF-2 Protein (*Fibroblast Growth Factor-2*) And p38 MAPK (*Mitogen-Activated Protein Kinase*) On *Protomalayid* Race With Cleft Lip In East Nusa Tenggara Province**. Final Assignment, Medical Program, Faculty Of Medicine, Brawijaya University. Supervisors : (1) dr. Herman Yosef L. W., Sp. BP, (2) dr. Hidayat Sujuti, Sp. M, Ph. D.

Cleft lip, is a congenital birth defect which caused by many factors. One of those factors, is genetic factor which related to the disrruption of protein, that causing abnormality on cell proliferation. FGF-2 (*Fibroblast Growth Factor-2*), and p38 MAPK (*Mitogen-Activated Protein Kinase*), are proteins which regulate cell proliferation. This research is conducted, to understand is there any correlation between expression of FGF-2 protein and p38 MAPK on *Protomalayid* race with cleft lip in East Nusa Tenggara Province. The design of this research is *Cross Sectional Analytic*. Sample of this research is cleft lip tissue, acquired by Saiful Anwar Hospital's plastic surgeon team, taken during social event which held on 3, 6, 7, 8 and 12 December 2012, at Hospital of Larantuka, Hospital of Kupang, and Hospital of Alor, which all located in East Nusa Tenggara Province, that fulfill the exclusion, and inclusion criteria. Each of the cleft lip tissue is stained with immunohistochemistry staining process using Monoclonal Antibody FGF-2, and Monoclonal Antibody p38 MAPK, then observed under the light microscope, by counting the cell that expressing the specific protein. Correlation analysis between expression of FGF-2 protein, and p38 MAPK is done by *Pearson* test. The result reveals, there is a significance correlation between expression of FGF-2 protein, and p38 MAPK, with moderate coefficient correlation (0.369). The conclusion is, expression of FGF-2 protein and p38 MAPK have a correlation with moderate coefficient correlation on *Protomalayid* race with cleft lip in East Nusa Tenggara Province.

Keywords : FGF-2 protein, p38 MAPK protein, cleft lip.