Risk factors for preterm birth and outcomes of pregnancy among Northeastern Thai teenage pregnancies in Khon Kaen, Thailand

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Background: Preterm birth may permanently affect some surviving babies. Teenage pregnancy is known to be a risk factor for preterm birth. Studies on risk factors for preterm birth in teenage pregnancy in Thailand is scant. This retrospective cohort study aimed to evaluate risk factors for preterm birth and outcomes of pregnancy among teenage mothers who gave birth in a tertiary hospital in Northeastern Thailand. **Methods**: All teenage pregnancies who gave birth at Khon Kaen hospital, Thailand, from January 2014 to December 2015 were retrospectively reviewed to identify risk factors for preterm birth and outcomes of pregnancy. Data and information on the characteristics of teenage mothers and outcomes of pregnancy were extracted from electronic files of medical records and charts. Multivariable logistic regression analysis was used to evaluate independent risk factors for preterm birth among teenage mothers. **Results**: During the study period, 1,042 teenage mothers were identified. The preterm birth rate among those teenage mothers was 16.8%. Teenage mothers were divided into 2 groups; term and preterm. Fetal complication and fetal anomaly were higher in the preterm group compared with the term group. There was no incident of stillbirth in the term group, while in preterm group there was a rate of 2.2%. BMI before pregnancy of less than 18.5 (OR, 1.89; 95% CI, 1.28-2.81), weight gain of < 5 kg (OR, 5.11; 95% CI, 2.96-8.81), prenatal visit of < 4 times (OR, 5.16; 95% CI, 3.50-7.61), premature rupture of membrane [PROM] (OR, 4.22; 95% CI, 2.20-8.11) and previous preterm birth (OR, 46.56; 95% CI, 13.15-164.88) were found to be independent risk factors for preterm birth in teenage mothers. **Conclusions**: Previous preterm birth, BMI before pregnancy of less than 18.5, weight gain of < 5 kg, prenatal visit of < 4 times, and PROM should be taken into consideration for prevention of preterm birth in teenage pregnancy.

Recent Publications

1. Satabongkoch N, Khunamornpong S, Pongsuvareeyakul T, Settakorn J, Sukpan K, Soongkhaw A, **Intaraphet S**, Suprasert P, Siriaunkgul S. Prognostic value of tumor budding in early-stage cervical adenocarcinoma. Asian Pac J Cancer Prev. 2017 Jun 25;18(6):1717-1722.
2. Khunamornpong S, Settakorn J, Sukpan K, Suprasert P, Srisomboon J, **Intaraphet S**, Siriaunkgul S. Genotyping for human papillomavirus (HPV) 16/18/52/58 has a higher performance than HPV16/18 genotyping in triaging women with positive high-risk HPV test in northern Thailand. PLoS One. 2016 Jun 23; 11(6):e0158184.
3. **Intaraphet S**, Farkas DK, Schmidt SAJ, Cronin-Fenton D, Søgaard M. Human papillomavirus infection and lymphoma incidence using cervical conization as a surrogate marker: a Danish nationwide cohort study. Hematol Oncol. 2015. DOI: 10.1002/hon.2270 (Published online in Wiley Online Library)
4. Khunamornpong S, Settakorn J, Sukpan K, Srisomboon J, **Intaraphet S**, Siriaunkgul S. High performance of combined HPV testing and genotyping for HPV16/18/52/58 in triaging women with minor cervical cytological abnormalities in northern Thailand. J Med Virol. 2015 Jun 30. doi: 10. 1002 / jmv.24290. [Epub ahead of print]
5. Pongsuvareeyakul T, Khunamornpong S, Settakorn J, Sukpan K, Suprasert P, **Intaraphet S**, Siriaunkgul S. Prognostic evaluation of tumor-stroma ratio in patients with early stage cervical adenocarcinoma treated by surgery. Asian Pac J Cancer Prev.2015;16(10):4363-8.
6. **Intaraphet S**, Kasatpibal N, Siriaunkgul S, Chandacham A, Sukpan K, Patumanond J. Prognostic factors for small cell neuroendocrine carcinoma of the uterine cervix: An institutional experience. Int J Gynecol Cancer. 2014; 24 (2):272-9.
7. **Intaraphet S**, Kasatpibal N, Søgaard M, Khunamornpong S, Patumanond J, Chandacham A, **Chitapanarux I**, Siriaunkgul S. Histological type-specific prognostic factors of cervical small cell neuroendocrine carcinoma, adenocarcinoma and squamous cell carcinoma. Onco Targets Ther. 2014; 7:1205-14.
8. **Intaraphet S**, Kasatpibal N, Siriaunkgul S, Sogaard M, Patumanond J, Khunamornpong S, Chandacham A, Suprasert P. Prognostic impact of histology in patients with cervical squamous cell carcinoma, adenocarcinoma and small cell neuroendocrine carcinoma. Asian Pac J Cancer Prev. 2013; 14(9): 5355-60.



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