**Óëüòðàñîíîãðàô³ÿ â ä³àãíîñòèö³ äèñïëàç³¿ êóëüøîâèõ ñóãëîá³â íîâîíàðîäæåíèõ òà ä³òåé ðàííüîãî â³êó**

***Îãëÿä çàðóá³æíî¿ ë³òåðàòóðè***

Â.². Æåëüîâ

 Äèñïëàç³ÿ êóëüøîâèõ ñóãëîá³â (ÄÊÑ), çãàäêè ïðî ÿêó çíàéäåí³ ùå â ïðàöÿõ Ã³ïîêðàòó äî òåïåð³øåüîãî ÷àñó çàëèøàºòüñÿ ïðîáëåìîþ äëÿ êë³í³öèñò³â. Íåçâàæàþ÷è íà òå, ùî öÿ ïàòîëîã³ÿ ìàº â³äíîñíî ñòàëó ÷àñòîòó, íåñâîº÷àñíà ä³àãíîñòèêà òà íåàäåêâàòíå ë³êóâàííÿ ìîæóòü ïðèâåñòè äî ñåðéîçíèõ ïðîáëåì êóëüøîâèõ ñóãëîá³â íà ïðîòÿç³ æèòòÿ **2,2,20,26,27,34.**

 Âðîäæåíà ÄÊÑ ïîºäíóº øèðîêèé ä³àïàçîí ïàòîëîã³÷íèõ ïðîÿâ³â â³ä íåçíà÷íî¿ äåôîðìàö³¿ âëàñíå àöåòàáóëþìó, íåñòàá³ëüíîñò³ ïðàâèëüíî ïîç³ö³îíîâàíèõ ñóãëîá³â äî âèðàæåíèõ ï³äçâèâèõ³â òà çâèâèõ³â. ²ñíóº äåÿêà ð³çíèöÿ ì³æ òåðì³íîëîã³ºþ íàö³îíàëüíèìè êëàñèô³êàö³ÿìè ÄÊÑ, òàê ó ÑØÀ ç 1994 ðîêó çàì³ñòü âðîäæåíîãî çâèâèõó êóëüøîâèõ ñóãëîá³â âæèâàºòüñÿ òåðì³í äåâåëîïìåíòàëüíà äèñïëàç³ÿ **1 .**

 Ñåðåä îñíîâíèõ ôàêòîð³â ðèçèêó âèíèêíåííÿ ÄÊÑ â³äì³÷àþòü ñ³ìåéíó (ãåíåòè÷íî äåòåðì³íîâàíó) ñõèëüí³ñòü; íåäîñòàòí³é ðîçâèòîê (ñïëîùåííÿ) àöåòàáóëþì³â; ñëàáê³ñòü çâ’ÿçîê òà îòî÷óþ÷èõ ñóãëîá ì’ÿç³â; íåíîðìàëüíó ïîçèö³þ ïëîäó in utero; òåðàòîãåíí³ ôàêòîðè; ï³äâèùåííÿ êîíöåíòðàö³¿ ìàòåðèíñüêèõ åñòðîãåí³â **20,31**.

 Ïðè ñ³äíè÷íèìó ïðåäëåæàíí³ ïëîäó ÄÊÑ çóñòð³÷àºòüñÿ ó 17% âèïàäê³â, ñï³ââ³äíîøåííÿ ê³ëüêîñò³ ä³â÷àòîê äî õëîï÷èê³â ñÿãàº 6 : 1. 7% ä³â÷àòîê, íàðîäæåíèõ ñ³äíè÷êàìè ìàþòü âèðàæåíó íåñòàá³ëüí³ñòü ÊÑ, ïåðåâàæíî á³ëàòåðàëüíó. Â ö³ëîìó â³äì³÷àºòüñÿ ïåðåâàãà á³ëàòåðàëüíèõ ÄÊÑ íàä óí³ëàòåðàëüíèìè. Á³ëüøèé ðèçèê ìàþòü ä³òè â³ä ïåðøèõ ïîëîã³â³. Ñåðåä ä³òåé, íàðîäæåíèõ âçèìêó ÄÊÑ òðàïëÿºòüñÿ ó 5 ðàç³â ÷àñò³øå, í³æ âë³òêó **27**.

 Ïîì³òí³ ðàñîâî-åòí³÷í³ ôàêòîðè, òàê ÷àñòîòà ÄÊÑ á³ëüøà ñåðåä íàðîä³â Ñêàíäèíàâ³¿ (äî 4%) **9**, ó Ãåðìàí³¿ - äî 2% **34**. Ó ÑØÀ ñåðåä á³ëîãî íàñåëåííÿ âèùà í³æ ñåðåä ä³òåé àôðèêàíñüêîãî ïîõîäæåííÿ ³ ñÿãàº 1-2% **6**.

²ñíóº çâ’ÿçîê ÷àñòîòè ÄÊÑ ç ñïîñîáîì ïåëåíàííÿ íîâîíàðîäæåíèõ. Ó ³íä³àíö³â ïëåìåí³ Íàâàõî, ÿê³ òðàäèö³éíî âèêîðèñòîâóþòü òóãå ïåëåíàííÿ òà äåðåâ’ÿí³ ò³ñí³ êîëèñêè ÷àñòîòà ÄÊÑ äîõîäèòü äî 6% **26**. Â ßïîí³¿ â³äìîâà â³ä òðàäèö³éíîãî ñïîñîáó ïåëåíàííÿ çàâäÿêè ïðîïàãàíä³ ²íñòèòóòó Íàö³îíàëüíîãî Çäîðîâ’ÿ çà îñòàíí³ ðîêè çíèçèëà ÷àñòîòó ÄÊÑ ç 3.5% äî 0.2% **33**.

 Âíàñë³äîê ðîçâèòêó êë³í³÷íî¿ ä³àãíîñòèêè ÄÊÑ ñôîðìóâàëèñü ÷³òê³ êðèòåð³¿ ô³ç³êàëüíîãî ñêðèí³íãó ïðîÿâ³â ÄÊÑ, ÿê àñèìåòðè÷íå âêîðî÷åííÿ íèæíüî¿ ê³íö³âêè, îáìåæåííÿ ðîçâåäåííÿ ñòåãîí ïðè ôëåêñ³¿ ó êîë³ííîìó ñóãëîá³, òåñò Barlow **2** (çì³ùåííÿ ãîë³âêè ñòåãíîâî¿ ê³ñòêè äîçàäó ïðè íàòèñíåíí³ âçäîâæ îñ³ ñòåãíà ïðè ôëåêñ³¿ 90**o** ó êîë³ííîìó ñóãëîá³ òà ïðèâåäåíí³ ñòåãíà ), òåñò Ortolani **25** - çì³ùåííÿ çâèõíóòî¿ ãîë³âêè ñòåãíà äîïåðåäó ïðè òðàêö³¿ ôëåêñîâàíî¿ í³æêè), âòðàòà ô³ç³îëîã³÷íî¿ ïîì³ðíî âèðàæåíî¿ (â³ä 20 äî 40**o**) àääóêö³éíî¿ êîíòðàêòóðè **27**. ²íø³ îçíàêè, ÿê àñèìåòð³ÿ ñêëàäîê ñòåãíà òà ñ-ì ëóñêîòó ïðè ðîçâåäåíí³ ñòåãîí ââàæàþòüñÿ íåäîñòàòíüî ñïåöèô³÷íèìè **21**. Àñèìåòð³ÿ øê³ðíèõ ñêëàäîê çóñòð³÷àºòüñÿ â íîðì³ äî 30% íîâîíàðîäæåíèõ **21,27**. Ñ-ì ëóñêîòó â á³ëüøîñò³ âèïàäê³â âèíèêàº âíàñë³äîê ïåðåêèäàííÿ øèðîêî¿ ôàñö³¿ ñòåãíà ÷åðåç âåëèêèé òðîõàíòåð àáî ïîïåðåêîâî¿ ôàñö³¿ ÷åðåç êàïñóëó êóëüøîâîãî ñóãëîáó ³ òàêîæ íå º ñïåöèô³÷íèì äëÿ ÄÊÑ **8**.

 Îñíîâí³ êë³í³êî-åò³îëîã³÷í³ êëàñèô³êàö³¿ ÄÊÑ âèä³ëÿþòü òðè òèïè **1,2,7,8.21,25,31** :

1- òåðàòîãåíí³ çâèâèõè, ÿê ïðàâèëî, ñôîðìîâàí³ in utero;

2- íåñòàá³ëüí³ñòü êóëüøîâèõ ñóãëîá³â - ïðè íîðìàëüíî ðîçâèíóòèõ àöåòàáóëþìàõ â³äì³÷àºòüñÿ ëåãêå çì³ùóâàííÿ ãîë³âîê (ïîçèòèâíèé êë³í³÷íèé òåñò Áàðëîëó) âíàñë³äîê ñëàáêîñò³ (íåäîðîçâèíåíîñò³) çâÿçîê ñóãëîáó;

3- çì³ùåííÿ ãîë³âîê , ìîðôîëîã³÷íî - ñïëîùåííÿ àöåòàáóëþì³â, êë³í³÷íî- íåñòàá³ëüí³ñòü ñóãëîá³â â³ä íåçíà÷íèõ ï³äâèâèõ³â äî âèðàæåíèõ çâèâèõ³â.

 Äî ê³íöÿ 70-õ ðîê³â îñíîâíèì ðàä³îëîã³÷íèì ìåòîäîì ä³àãíîñòèêè ÄÊÑ ÿâëÿëàñü ðåíòãåíîãðàô³ÿ òàçó ó ïåðåäíüî-çàäí³é ïðîåêö³¿. Àëå êð³ì åêñïîçèö³¿ ³îí³çóþ÷îãî âèïðîì³íþâàííÿ, ðåíòãåíîãðàô³ÿ ó ä³òåé äî 3 ì³ñÿö³â ìàëîôåêòèâíà, âíàñë³äîê íåäîñòàòíüî¿ â³çóàë³çàö³¿ õðÿùåâèõ ñòðóêòóð, íåìîæëèâîñò³ ïðîâåäåííÿ äèíàì³÷íîãî äîñë³äæåííÿ **2,22,24,36**. Â³äì³÷åíà íèçüêà åôåêòèâí³ñòü ðåíòãåíîãðàô³¿ ÊÑ â ä³àãíîñòèö³ äèñïëàç³é áåç çì³ùåííÿ òà íåñòàá³ëüíîñò³ ÊÑ **10**.

 Óëüòðàñîíîãðàô³ÿ, ÿêà íå ìàº òàêî¿ äîâãî¿ ³ñòîð³¿ âèêîðèñòàííÿ â îðòîïåä³¿, ÿê íàïðèêëàä â ãàñòðîåíòåðîëîã³¿ ÷è íåôðîëîã³¿ ³ç-çà ñïåöèô³êè ñëàáêî¿ ïåíåòðàö³¿ óëüòðàçâóêîì ê³ñòêîâî¿ òêàíèíè, äàº çìîãó äåòàëüíî âåðèô³êóâàòè ã³äðîô³ëüí³ ñòðóêòóðè, íàïðèêëàä ì’ÿçè, çâ’ÿçêè, õðÿù³ òà ³í. Îñòàíí³é àñïåêò äóæå âàæëèâèé ïðè äîñë³äæåíí³ íîâîíàðîäæåíèõ ä³òåé, ó ÿêèõ ó êóëüøîâèõ ñóãëîáàõ ïåðåâàæàº õðÿùîâà òêàíèíà. Çà 15 ðîê³â ç ìîìåíòó ïåðøèõ ñïðîá âèêîðèñòàííÿ óëüòðàñîíîãðàô³¿ â ä³àãíîñòèö³ ÊÑ öåé ìåòîä íå ìàº ñîá³ ð³âíèõ ó ÷óòëèâîñò³ òà ñïåöèô³÷íîñò³ ðàííüî¿ ä³àãíîñòèêè ÄÊÑ **3,7,9,19,28,30**.

 Ï³îíåðîì ÓÑ â ä³àãíîñòèö³ ÄÊÑ ïî ïðàâó ââàæàºòüñÿ àâñòð³éñüêèé îðòîïåä Graf, ÿêèé âïåðøå çàïðîïîíóâàâ ó 1980 ð. âëàñíó îðèã³íàëüíó ìåòîäó ä³àãíîñòèêè ÄÊÑ ç âèêîðèñòàíÿì Â-ñòàòè÷íîãî ñêàíåðó **12**, îñíîâó ÿêî¿ ñêëàäàþòü äîñë³äæåííÿ ñóãëîá³â ó êîðîíàðí³é ïðîåêö³¿, âåðèô³êàö³þ îñíîâíèõ àíòîì³÷íèõ ñòðóêòóð **13**, òà ìîðôîìåòð³þ çà äîïîìîãîþ ñòàíäàðòíèõ ë³í³é, ïðîâåäåíèõ ÷åðåç îñíîâí³ îð³ºíòèðè, òà âèì³ð³â êóò³â ì³æ íèìè. Ïðîåêö³ÿ çð³ç³â ôàêòè÷íî àíàëîã³÷íà ïðîåêö³¿ ïåðåäíüî-çàäíüî¿ ðåíòãåíîãðàìè. Äàò÷èê ðîçòàøîâàíèé âåðòèêàëüíî, ïàðàëåëüíî îñ³ ò³ëà, íîãè ïðèâåäåí³, â³ëüí³, ÷è íåçíà÷íî ç³ãíóò³ â êîë³ííèõ ñóãëîáàõ. Äèòèíà ëåæèòü íà êîíòðëàòåðàëüíîìó áîö³. Òàê ÿê ³ ðåíòðåíîãðàô³ÿ, öÿ ìåòîäà º ìîðôîìåòðè÷íîþ, äîçâîëÿº îö³íèòè ðîçòàøóâàííÿ ãîë³âêè òà àöåòàáóëþìó ëèøå â îäí³é ïðîåêö³¿. Çàïðîïîíîâàíà Graf êëàñèô³êàö³ÿ ÄÊÑ áàçóºòüñÿ íà âåëè÷èíàõ êóò³â ì³æ áàçîâèìè ë³í³ÿìè (ò. çâ. êóòè α òà β ) ³ âêëþ÷àº 4 îñíîâí³ òèïè **14**:

Òèï I - íîðìàëüíî ðîçâèíåí³ ñóãëîáè

Òèï II - äèñïëàç³ÿ áåç çì³ùåííÿ

Òèï III - âèðàæåíà äèñïëàç³ÿ, ï³äçâèâèõ

Òèï IV - ïîâíèé çâèâèõ.

Íåäîë³êàìè ìåòîäè º äîñèòü âèðàæåíà ñóá’ºêòèâí³ñòü ó âèáîð³ ñòàíäàðòíîãî çð³çó, ïðîâåäåííÿ áàçîâèõ ë³í³é ÷åðåç àíàòîì³÷í³ îð³ºíòèðè òà âèì³ðè êóò³â ì³æ íèìè. Òàêîæ â³äñóòíÿ ìîæëèâ³ñòü ïðîâåäåííÿ ôóíêö³îíàëüíèõ ïðîá. Õî÷à ï³çí³øå Graf **14**, Rosendahl et al. **28** çàïðîïîíîâàíî ïðîâîêàö³éíèé òåñò - ïîì³ðíó òðàêö³ÿ ê³íö³âêè äîíèçó, àëå àâòîðè íå ïîäàþòü äàíèõ ïðî éîãî ³íôîðìàòèâí³ñòü. Äîñë³äæåííÿ äîñòîâ³ðíîñò³ ö³º¿ ìåòîäè ïîêàçàëè â³äíîñíî âåëèêèé, àëå äàëåêî íå àáñîëþòíèé ïðîöåíò ñï³âïàä³íü - 69% ïðè àíàë³ç³ ñîíîãðàì äâîìà íåçàëåæíèìè ðàä³îëîãàìè **4,28**.

 Ç ïîÿâîþ ñêàíåíð³â ðåàëüíîãî ÷àñó ìîðôîìåòðè÷íèé ìåòîä Graf íàáóâ øèðîêîãî ðîçïîâñþäæåííÿ, îñîáëèâî ó êðà¿íàõ ªâðîïè ïðè ïðîâåäåíí³ ñêðèí³íãó ÄÊÑ, áóâ äîïîâíåíèé òà ìîäèô³êîâàíèé **34,35**. Ïåðåâàæíî âèêîðèñòîâóâàëèñü ë³í³éí³ äàò÷èêè ç ÷àñòîòíèì ä³àïàçîíîì 3.5 - 7 Ìãö â çàëåæíîñò³ â³ä â³êó äèòèíè.

 ²íø³ àâòîðè íàìàãàëèñü ðîçøèðèòè ìîæëèâîñò³ äîñë³äæåííü çà ðàõóíîê âèêîðèñòàííÿ ïîë³ïîçèö³éíèõ çð³ç³â **4,9,23**. Harcke ç ñîàâò.**7** çàïðîïîíóâàëè äèíàì³÷íó óëüòðîñîíîãðàô³ÿ êóëüøîâèõ ñóãëîá³â - ïîºäíàííÿ ïîë³ïîçèö³éíî¿ ñîíîãðàô³¿ ç ïðîâåäåííÿì ôóíêö³îíàëüíèõ òåñò³â ñòàá³ëüíîñò³ ñóãëîá³â, ïîä³áíî äî êë³í³÷íèõ òåñò³â Ortolani òà Barlow, ÿê³ âèçíà÷àëè áàçèñ êë³í³÷íèõ êëàñèô³êàö³é ÄÊÑ **17,29**. Êëþ÷îâ³ ìîìåíòè ìåòîäó - îö³íêà ðîçòàøóâàòòÿ òà ñòàá³ëüíîñò³ ãîë³âêè ñòåãíîâî¿ ê³ñòêè **15**.

 Îñíîâè äèíàì³÷íî¿ óëüòðàñîíîãðàô³¿ ÊÑ:

* îö³íêà ðîçòàøóâàííÿ ãîë³âêè ñòåãíà â àöåòàáóëþì³ â ïîë³ïîçèö³éíèõ çð³çàõ - íà íåéòðàëüíîìó êîðîíàðíîìó, íåéòðàëüíîìó ïîïåðå÷íîìó, ôëåêñ³éíîìó ïîïåðå÷íîìó òà êîðîíàðíîìó çð³çàõ - ÿê íîðìàëüíå ïîç³ö³îíóâàííÿ, ï³äçâèâèõ ÷è çâèâèõ;
* îö³íêà ñòàá³ëüíîñò³ ñóãëîáó ïðè ïðîâåäåí³ òåñò³â Ortolani òà Barlow ïðè ôëåêñ³éíèõ ïîïåðå÷íèõ òà êîðîíàðíèõ çð³çàõ - ÿê íîðìàëüíå, íåñòàá³ëüíå, ï³äçâèâèõ, âïðàâèìèé òà íåâïðàâèìèé çâèâèõ;
* îö³íêà ñòóïåíÿ ðîçâèòêó ñóãëîáó - ãëèáèíà òà êîíô³ãóðàö³ÿ àöåòàáóëþìó, ðîçâèòîê òà êîíòóð ëàáðóìó **7,15,16,17**.

 Õî÷à â îñíîâ³ ìîðôîìåòðè÷íîãî ìåòîäó Graf**12** òà äèíàì³÷íîãî Harcke**7** ëåæàòü ð³çí³ ô³ëîñîôñüê³ êîíöåïö³¿, ìåòîäè ìàþòü áàãàòî ñï³ëüíîãî. Â ¿õ îñíîâ³ ëåæèòü âèçíà÷åííÿ âçàºìîðîçòàøóâàííÿ ñòðóêòóð êóëüøîâãî ñóãëîáó. Òàê ìåòîä Graf íå ìàº ôóíêö³îíàëüíèõ òåñò³â, àëå ðîçâèíåí³ òà ïåðåâ³ðåí³ ÷àñîì ìîæëèâîñò³ îö³íêè ñï³ââ³äíîøåííÿ àíàòîì³÷íèõ ìàðêåð³â. Ìåòîä Harcke - êð³ì îö³íêè ðîçòàøóâàííÿ ãîë³âêè ñòåãíà òà àöåòàáóëþìó â ð³çíèõ àíàòîì³÷íèõ çð³çàõ, ôóíêö³îíàëüí³ òåñòè ñòàá³ëüíîñò³ ñóãëîáó, àëå ìåíøå ìîæëèâîñòåé äëÿ âèçíà÷åííÿ çð³ëîñò³/íåçð³ëîñò³ ñóãëîáó**17**.

 Ëîã³÷íî ïðèïóñòèòè çàêîíîì³ðí³ñòü ïîºäíàííÿ âèêîðèñòàííÿ îáîõ ìåòîä³â ïðè äîñë³äæåíí³ ÄÊØ, îñîáëèâî ïðè ïðîâåäåíí³ ñêðèí³íãîâèõ äîñë³äæåíü, ùî ³ áóëî ñï³ëüíî çàïðîïîíîâàíî Graf, Harcke òà Clarcke ó 1993 ðîö³**19**, òàêîæ âèçíà÷åíî ì³í³ìàëüíèé ñòàíäàðòíèé ïðîòîêîë ÓÑ êóëüøîâèõ ñóãëîá³â. Îñíîâí³ ïðèíöèïè ÿêîãî :

* Êóëüøîâ³ ñóãëîáè ìóñÿòü äîñë³äæóâàòèñü â ñòàí³ ñïîêîþ òà ç ôóíêö³îíàëüíèìè òåñòàìè;
* Äîñë³äæåííÿ âêëþ÷àº ð³çí³ àíàòîì³÷í³ çð³çè;
* Äîñë³äæåííÿ âêëþ÷àº âèçíà÷åííÿ ìîðôîëîã³¿ òà ñòàá³ëüíîñò³ ñóãëîá³â.

 Äèñêóòóþòüñÿ ïèòàííÿ â³äíîñíî ïðîâåäåííÿ óëüòðàñîíîãðàô³÷íîãî ñêðèí³íãó ÄÊØ ó íîâîíàðîäæåíèõ òà éîãî îïòèìàëüíèõ òåðì³í³â. Óëüòðàçâóêîâèé ñêðèí³íã âñ³õ íîâîíàðîäæåíèõ â ïåðø³ 2 òèæí³ æèòòÿ ïðîâîäèòüñÿ â äåÿêèõ êðà¿íàõ ªâðîïè**3,14,32,36**. Íåçâàæàþ÷è, ùî äîñë³äæåííÿ **3,32** äîêàçóþòü ïåðåâàãè ñîíîãðàô³¿ â ä³àãíîñòèö³ òà êë³í³÷íîìó ìåíåäæåìåíò³ ÄÊØ â ðàííüìó â³ö³, òàêîæ çàóâàæåíî ùî òîòàëüíèé ñêðèí³íã íîâîíàðîäæåíèõ ïðèâîäèòü äî ã³ïåðä³àãíîñòèêè ³ ã³ïåðòåðàï³¿**18,31**. Òîòàëüíèé ñêðèí³íã ìàº òðè ñóòòºâ³ íåäîë³êè**18**:

1. ó áàãàòüîõ ä³òåé ñîíîãðàô³ÿ ïîêàçóº íàÿâí³ñòü íåçíà÷íèõ â³äõèëåíü ÿê ñòàá³ëüíîñò³ òà ðîçâèòêó àöåòàáóëþì³â, ÿê³ çíèêàþòü ï³çí³øå áåç ë³êóâàííÿ;
2. îáñåðâàö³ÿ òà ë³êóâàííÿ öèõ ôàëüñ-ïîçèòèâíèõ âèïàäê³â ÿê ³ çàãàëüíèé ñêðèí³íã íîâîíàðîäæåíèõ ïîòðåáóþòü çíà÷íèõ êîøò³â òà ðåñóðñ³â;
3. äåÿê³ âèïàäêè äèñïëàç³¿, ÿê³ ðîçâèâàþòüñÿ ï³ñëÿ íåîíàòàëüíîãî ïåð³îäó ìîæóòü áóòè íå ä³àãíîñòîâàí³.

 ²íøèé ï³äõ³ä äî âèêîðèñòàííÿ ñîíîãðàô³¿ º ñôîêóñóâàííÿ ñåãìåíòó ïîïóëÿö³¿ ç äîñòîâ³ðíî ï³äâèùåíèì ðèçèêîì ÄÊØ **19** (òàáë 1), ùî º ÿâíîþ ïåðåâàãîþ, îñê³ëüêè çíà÷íî çìåíøóºòüñÿ êëüê³ñòü îáñòåæåíèõ ä³òåé, ñïðîùóºòüñÿ ïðîâåäåííÿ òà çíèæóºòüñÿ çàãàëüíà âàðò³ñòü ïðîãðàì. Boere òà Clarke (íåîïóáë³êîâàí³ äàí³) ïåðåâ³ðèëè öþ êîíöåïö³þ íà òåðèòîð³¿ Âåëèêîáðèòàí³¿. Àâòîðè ïðîâåëè êë³í³÷íå îáñòåæåííÿ íîâîíàðîäæåíèõ ÿê ïî÷àòêîâèé åòàï ç ïîäàëüøîþ ñîíîãðàô³ºþ ä³òåé ç âèÿâëåíèìè â³äõèëåííÿìè. Íà äîäàòîê, êîæíà äèòèíà ç ôàêòîðàìè ðèçèêó áóëà ñîíîãðàô³÷íî îáñòåæåíà ó â³ö³ 6 òèæí³â. Ñåðåä ïîïóëÿö³¿ ç 23 535 îáñòåæåíèõ ä³òåé 2079 (9%) áóëè ñêåðîâàí³ íà ñîíîãðàô³þ âíàñë³äîê âèùåçãàäàíèõ ôàêòîð³â ðèçèêó. Ñîíîãðàô³ÿ äîêàçàëà ñâîþ åôåêòèâí³ñòü ïåðåä ðóòèííèì êë³í³÷íèì îáñòåæåííÿì, àëå â ïîäàëüøîìó ñïîñòåðåæåíí³ ó 5 ä³òåé (0.02%) ç íîðìàëüíèìè êë³í³÷íèìè äàíèìè òà â³äñóòí³ñòþ ôàêòîð³â ðèçèêó ðîçâèíóëàñü ÄÊØ. Õî÷à ó äåÿêèõ ä³òåé ç ö³º¿ ãðóïè ïðè òîòàëüíîìó ñîíîãðàô³÷íîìó ñêðèí³íãó ïàòîëîã³ÿ ìîãëà áóòè âèÿâëåíà ÷è íåä³àãíîñòîâàíà ç îäíàêîâîþ éìîâ³ðí³ñòþ, ùî ñâ³ä÷èòü ïðî íàÿâí³ñòü â³äñòðî÷åíèõ â ÷àñ³ êë³í³÷íèõ ïðîÿâ³â ÄÊØ **19,31**.

 Íàñòóïíå ïèòàííÿ ïðî òåðì³íè ïðîâåäåííÿ ñêðèí³íãó. Êóëüøîâ³ ñóãëîáè ç ï³äçâèâèõàìè ÷è çâèâèõàìè ìîæóòü ñàìîñò³éíî ñêîðèãóâàòèñü ï³ä ÷àñ ïåðøîãî ì³ñÿöÿ æèòòÿ áåç ë³êóâàííÿ **2**. Ñêðèí³íã, ïðîâåäåíèé ï³ñëÿ íåîíàòàëüíîãî ïåð³îäó äàº çìîãó âèêëþ÷èòè ôàëüñ-ïîçèòèâí³ âèïàäêè àëå íå âèêëþ÷àº ïîìèëîê â ä³àãíîñòèö³ â³äñòðî÷åíî¿ ÄÊØ. Åôåêòèâí³ñòü êîíñåðâàòèâíèõ ìåòîäèê, òàêèõ ÿê øîðè Pavlik, çàëåæèòü â³ä â³êó äèòèíè íà ïî÷àòîê ë³êóâàííÿ **2,27**. Âðàõîâóþ÷è ö³ ì³ðêóâàííÿ íàéîïòèìàëüí³øèì ÷àñîì ïðîâåäåííÿ ñêðèí³íãó âèãëÿäàº â³ê äèòèíè 4-6 òèæí³â**19**.

 Êîëè ïåðø³ êë³í³÷í³ îáñòåæåííÿ âêàçóþòü íà íåñòàá³ëüí³ñòü ñóãëîá³â (Barlow òà Ortolani òåñòè), ñîíîãðàô³ÿ ìóñèòü áóòè ïðîâåäåíà äî 2 òèæí³â â³êó äèòèíè. Ó äåÿêèõ ä³òåé ðåçóëüòàòè Barlow òà Ortolani òåñò³â º äîñòîâ³ðíèìè. Ö³ ä³òè òàêîæ ïîòðåáóþòü ñîíîãðàô³¿. Êîëè íåñòàá³ëüí³ñòü íå âèçíà÷àºòüñÿ, àëå ïðèñóòí³ ³íø³ îçíàêè, íàïð. ñ-ì ëóñêîòó, ïîêàçàíèé ñîíîãðàô³÷íèé êîíòðîëü, àëå íå ðàí³øå 4-6 òèæíÿ â³êó äèòèíè. Íàéá³ëüø òèïîâî, êîëè íåçíà÷íà íåñòàá³ëüí³ñòü âíàñë³äîê ô³ç³îëîã³÷íî¿ íåäîðîçâèíåíîñò³ çíèêàº íà ïðîòÿç³ ïåðøîãî ì³ñÿöÿ æèòòÿ ³ íå ïîòðåáóº ë³êóâàííÿ. Ó âèïàäêàõ, êîëè ñîíîãðàô³ÿ ä³òåé ó â³ö³ äî 4 òèæí³â âêàçóº íà íåçíà÷í³ â³äõèëåííÿ ÿê ñëàáê³ñòü, ï³äçâèâèõ òà ïîì³ðíî âèðàæåíó íåäîðîçâèíåí³ñòü àöåòàáóëþì³â ðåêîìåíäóºòüñÿ ñïîñòåðåæåííÿ áåç ë³êóâàííÿ. Äèíàì³÷íå ñïîñòåðåæåííÿ äîêàçóº çíèêíåííÿ öèõ ïðîÿâ³â ç ÷àñîì **19**.

 Ä³òè, ÿê³ ìàþòü ôàêòîðè ðèçèêó, àëå êë³í³÷íå îáñòåæåííÿ áåç â³äõèëåíü ïîâèíí³ ïðîõîäèòè ñîíîãðàô³÷íå îáñòåæåííÿ ó â³ö³ 4-6 òèæí³â. Íàâ³òü ïðè íàÿâíîñò³ ïàòîëîã³÷íèõ çì³í ðîçïî÷àòå ó öüîìó â³ö³ ë³êóâàííÿ ãàðàíòóº óñï³õ **1**.

 Âíàñë³äîê îáìåæåííÿ ðåñóðñ³â òà ³íøèõ ôàêòîð³â óëüòðàñîíîãðàô³÷íèé ñêðèí³íã âñ³õ íîâîíàðîäæåíèõ âèçíàºòüñÿ íåäîö³ëüíèì.

Òàáëèöÿ 1 Ôàêòîðè ðèçèêó ÄÊØ

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| Çì³íè, âèÿâëåí³ ïðè êë³í³÷íîìó îáñòåæåíí³ |
|  | Íåñòàá³ëüí³ñòü |
|  | Ñ-ì ëóñêîòó |
|  | Îáìåæåííÿ ðîçâåäåííÿ |
| Ñ³ìåéí³ âèïàäêè ÄÊØ |
| Ñ³äíè÷íå ïðåäëåæàííÿ ïðè íàðîäæåíí³ |
|  | Âàã³íàëüí³ ïîëîãè |
|  | Êåñàð³â ðîçòèí |
| Äåôîðìàö³¿ ïîëîæåííÿ ( ñêëàäêè) |
|  | Êðèâîøèÿ |
|  | Äåôîðìàö³¿ ñòîï |
| ²íø³ |
|  | Äåôîðìàö³¿ êóïðèêà |
|  | Ãåíåòè÷í³ çàõâîðþâàííÿ òà ñ-ìè |

 *Ä³â÷àòêà ìàþòü á³ëüøó ÷àñòîòó ÄÊØ, í³æ õëîï÷èêè, àëå âëàñíå ñòàòü íå âèçíà÷åíà ÿê ôàêòîð ðèçèêó.*

Òàáëèöÿ 2 Àëãîðèòì ñêðèí³íãó ÄÊØ.

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| Êë³í³÷íå îáñòåæåííÿ íîâîíàðîäæåíîãî |
|  |
| Áåç â³äõèëåíü | Âèÿâëåí³ â³äõèëåííÿ |
|  |  |  |  |
| Ôàêòîðè ðèçèêó â³äñóòí³ | ª ôàêòîðè ðèçèêó | Ñòàá³ëüíèé ñ-ì ëóñêîòó | Íåñòàá³ëüíèé ñóãëîá |
|  |  |  |  |
| Ñîíîãðàô³ÿ íå ïîêàçàíà | Ñîíîãðàô³ÿ ó 4-6 òèæí³â | Ñîíîãðàô³ÿ ó 4-6 òèæí³â | Ñîíîãðàô³ÿ ó 2 òèæí³ |

Ë³òåðàòóðà

1. Aronsson DD, Goldberg MJ, Kling TF, Roy DR. Developmental dysplasia of the hip. *Pediatrics* **1994**; 94:201-208
2. Barlow TG. Early diagnosis and treatment of congenital dislocation of the hip. *J Bone Joint Surg (Br)* **1962**; 44:292-301
3. Berman L, Klenerman L. Ultrasound screening for hip abnormalities: reliminary findings in 1001 neonates. *BMJ* **1986**; 293:719-722
4. Boal DKV, Schwenrker EP. The infant hip: assessment with real-time ultrasound. *Radiology* **1985**; 157:667-672
5. Bick U, Muller-Leisse C, Troger J. Ultrasonography of the hip of preterm neonates. *Pediatr Radiol* **1990**; 20:331-333
6. Burke SW, Macey TI, Roberts JM, et al. Congenital dislocation of the hip in the American black. *Clin Orthop* **1985**; 192:120-123
7. Clarke NMR, Harcke HT, McHugh P, Lee MS, at al. Real-time ultrasound in the diagnosis of congenital dislocation and dysplasia of the hip. *J Bone Surg (Br)* **1985**; 67-B: 406-412
8. Chung SMK. Diseases of of the developing hip joint. *Pediatr Clin North Am* **1986**; 33: 1457-1473
9. Dahlstrom H, Oberg L, Friberg S. Sonography in congenital dislocation of the hip. *Acta Orthop Scand* **1986**; 57:402-406
10. Donaldson JS. Pediatric muskuloskeletal US. Syllabus: Acategorical course in diagnostic radiology. *Pediatr Radiol* **1989**; 77-88
11. Engesaeter LB, Wilson DJ, Nag D, et al. Ultrasound and congenital dislocation of the hip: The importance of dynamic assessment. *J Bone Joint Surg (Br)* **1990**; 72: 197-201
12. Graf R. The diagnosis of congenital hip-joint dislocation by the ultrasonic compound treatment. *Arch Orthop Trauma Surg* **1980**; 97:117-133
13. Graf R. The ultrasonic image of acetabular rim in infants. *Arch Orthop Trauma Surg* **1981**; 99:35-41
14. Graf R. Sonographie der Sauglingshufte: ein Kompendium. *3rd. Enke, Stuttgart*, **1989** pp 20,90-91,98-99
15. Harcke HT, Grissom LE. Sonographic Evaluation of the Infant Hip. *Seminars in Ultrasound, CT and MRI* **1986**; 7: 331-338
16. Harcke HT, Grissom LE, Finkelstein MS. Evaluation of the Musculosceletal System with Sonography. *AJR* **1988**; 150:1253-1261
17. Harcke HT, Grissom LE. Performing Dynamic Sonography of the Infant Hip. *AJR* **1990**; 155:837-844.
18. Harcke HT. Screening Newborns for Developmental Dysplasia of the Hip: The Roule of Sonography. *AJR* **1994**; 162: 395-397
19. Harcke HT. The role ou ultrasound in diagnosis and management of developmental dysplasia of the hip. *Pediatr Radiol* **1995**; 25: 225-227
20. Hayden CK, Swischuk LE. Pediatric Ultrasonography. *Williams & Wilkins, Baltimore, 2nd Ed*., **1992**, pp. 426- 429
21. Hensinger RN. Congenital dislocation of the hip: treatment in infancy to walking age. *Orthop Clin North Am* **1987**; 18:597-616
22. Millis MB, Share JC. Use of Ultrasonography in Dysplasia of the Immature Hip. Clinical Orthopaedics and Related Research. 1992; 274: 160-170
23. Novick GS, Ghelman B, Schneider M. Sonography of neonatal and infant hip. *AJR* **1983**; 141:639-645
24. Novic GS. Sonography in pediatric hip disorders. Radiol Clin North Am 1988; 26:29-53
25. Ortolani M. The classic: Congenital hip dysplasia in the light of early and very early diagnosis. *Clin Orthop* **1976**; 119:6-10
26. Pratt WB, Freiberger RN, Arnold WD. Untreated congenital hip dysplasia in Navajo. *Clin Orthop* **1982**; 162:69-7727. Renshaw TS. Pediatric Orthopedics. *Philadelphia: WB Saunders*, **1986**
27. Renshaw TS. Pediatric Orthopedics. *Philadelphia: WB Saunders*, **1986**
28. Rosendahl K, Aslaksen A, Lie RT, Markestad T. Reliability of ultrasound in the early diagnosis of developmental dysplasia of the hip. *Pediatr Radiol* **1995**; 25:219-224
29. Saies AD, Foster BK, Lequesne GW. The value of a new ultrasound stress test in assessment and treatment of clinically detected hip instability. *J Pediatr Orthop* **1988**; 8:436-441
30. Szoke N, Kuhl L, Heinrichs J. Ultrasound examination in the diagnosis of congenital hip dysplasia in newborns. *J Pediatr Orthop* **1988**; 8:12-16
31. Teele RL, Share JC. Ultrasonography of infants and children*. Philadelphia: WB Saunders*,**1991**, pp. 123-136
32. Tonnis D, Storch K, Ulbrich H. Results of newborn screening for CDH with and without sonography and correlation of risk factors. *J Pediatr Orthop* **1990**; 10:145-152
33. Yamamuro T, Ishida K. Recent advances in prevention, early diagnosis, and treatment of congenital dislocation of the hip in Japan. *Clin Orthop* **1984**; 184:34-40
34. Zieger M, Hilpert S, Schulz RD. Ultrasound of the infant hip. Part 1. Basic principles. *Pediatr Radiol* **1986**; 16: 483-487
35. Zieger M. Ultrasound of the infant hip. Part 2. Validity of the method. *Pediatr Radiol* **1986**; 16: 488-492
36. Zieger M, Schulz RD. Ultrasound of the infant hip. Part 3:Clinical application. *Pediatr Radiol* **1987**; 17: 226-232
37. Zieger M, Hilpert S. Ultrasound of the infant hip. Part 4: Normal development in the newborn and preterm neonate. *Pediatr Radiol* **1987**; 17: 470-473