

**НОВЫЙ ШАГ К ПЕРСониФИЦИРОВАННОЙ МЕДИЦИНЕ.  
 НАВИГАЦИОННАЯ СИСТЕМА ТРАНСКРАНИАЛЬНОЙ МАГНИТНОЙ  
 СТИМУЛЯЦИИ (NBS eXimia NEXSTIM)**

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(Penfield, Jasper, 1954).

40 20 - . . . . . ( , 1963; , 1965). , (DBS), .

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Day et al., 1989

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et al., 2002; Wagner et al., 2007),

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(Lotze et al., 2003, Neuvonen et al., 2009).

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**Целью**

NBS eXimia Nexstim.

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(Ruohonen, Karhu, 2010).

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(NBS eXimia Nexstim); 3)

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1. Навигационная система, локализующая нахождение аксессуаров (очки, навигационные очки, перо).

4. Система соотносит электромагнитное поле с МРТ.

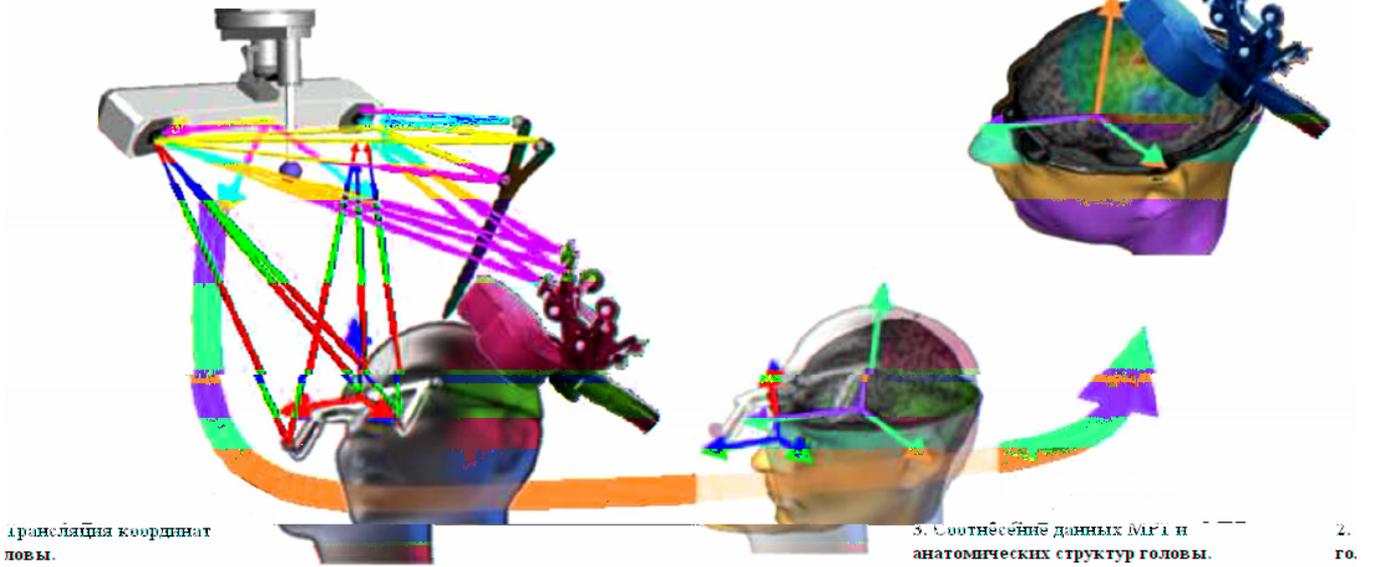


Рис. 1.

( Ruohonen, Karhu, 2010).

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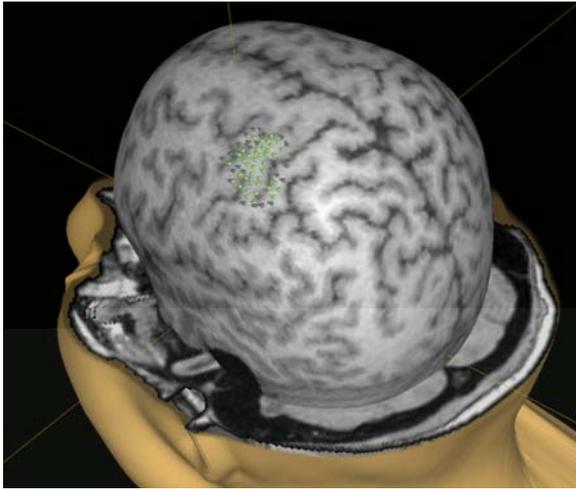
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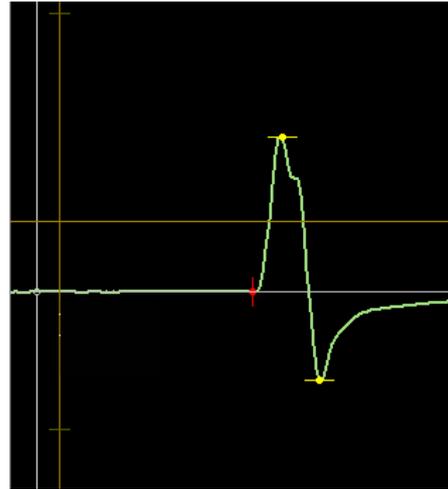
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Рис. 2.

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 m. abductor pollicis brevis). ,23 ( ) ( )  
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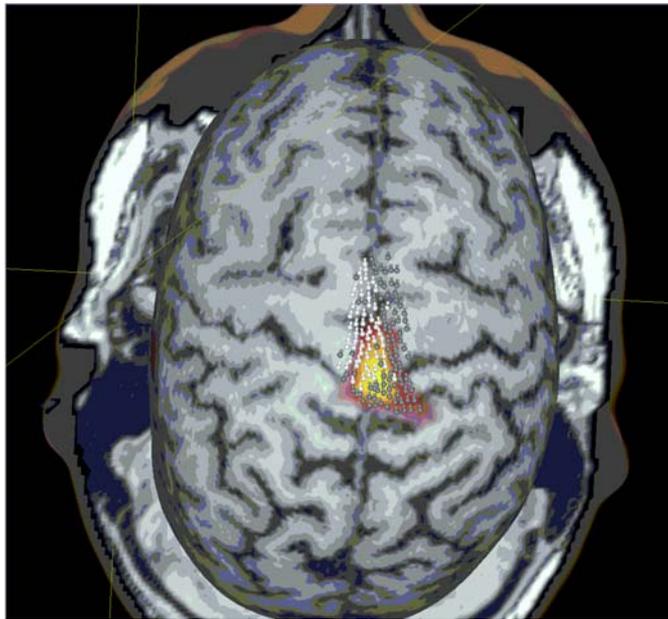
**Диагностическое применение навигационной ТМС (нТМС).**

**Нейрохирургия.**

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 . Picht et al. Forster et al.  
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 (Picht et al. 2009; Forster et al. 2009).  
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 (Vitikainen et al., 2009). Fujiki et al. ,  
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 (Fujiki et al., 2007).  
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 (10,5±5,7 ) ,  
 (15,0±7,6 ) (Forster et al., 2011).  
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 FDA (USA) 2009  
 eXimia NBS  
 , (Ruohonen, Karhu, 2010).

**Навигационная ТМС и функциональная МРТ (фМРТ).**

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3,70±4,85 (Mean±St.Dev) ( 0 21,7 ).

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### ЭЭГ и ТМС.

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(Komssi et al., 2007; Massimini et al. 2005).

(Ruohonen, Karhu, 2010).

Cracco et al. 1989 .

(Veniero et al. 2009).

NBS eXimia Nexstim (Ruohonen, Karhu, 2010).

(Fuggetta et al., 2005; Rosanova et al. 2009),

(Rosanova et al. 2009)

(Pfurtscheller,

Lopes, 1999).

(Risto, Dubravko, 2010).

D. Kicic 2009

: N15 ( , 15 ), P30

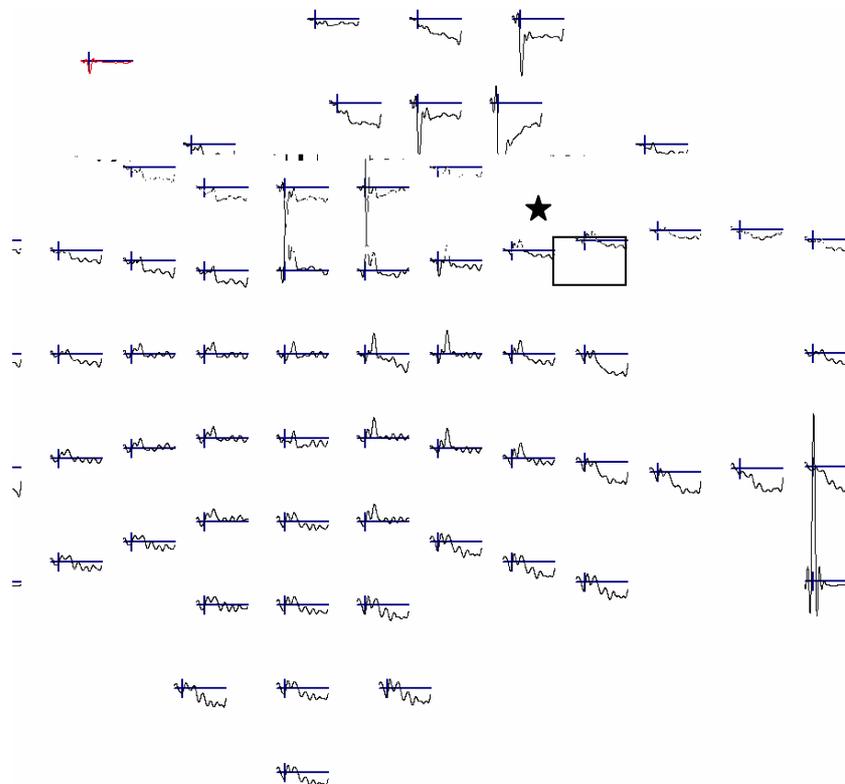
( , N45, P55, N100, P180.

(Bender et al. 2005; Massimini et al. 2005; Esser et al. 2006).

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- .5.  
- N100 (Bender et al. 2005; Massimini et al. 2005; Kicic  
2009; Lioumis et al. 2009).

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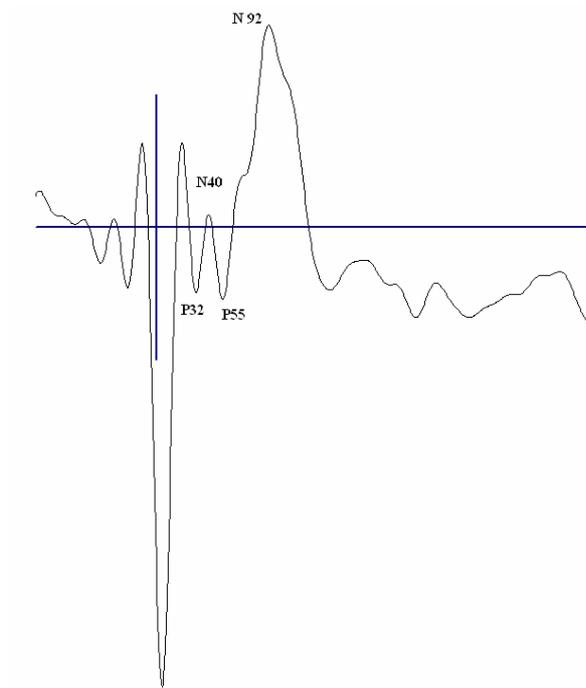
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 200 , , ,  
 (Lioumis et al., 2009). 10  
 - (Komssi et al., 2007). -



**Puc. 4.**

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 , : P32 ( 9,1 ), N40 ( 1,1 ), P55  
 ( 9,8 ), N92 ( -28,2 ). - , P32 N 92 –  
 P30 N100 .



**Puc. 5.**

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(Esser et al., 2006; Huber et al., 2008).

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(Esser et al. (2006),

- (8-13 ),

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al., 2008).

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Bonnard et al. (2009)

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(Kim et al., 2006).  
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 (Williams et al., 2009).

Zorowitz, Brainin « 2010  
 », Stroke,  
 (Zorowitz, Brainin, 2011).

### **Хроническая боль.**

20-45%  
 (Lefaucheur et al., 2004; Khedr et al., 2005).  
 (Williams et al., 2009; Andre-Obadia et al., 2006; Khedr et al., 2005).

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 (Lefaucheur et al., 2001), (Lefaucheur et al., 2004), (Andre-Obadia et al., 2006).  
 (Brighina et al., 2004) (Sampson et al., 2006).

(Fregni et al., 2005).  
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 Irlbacher et al. 2006

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**Болезнь Паркинсона.** 2009

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0,62) (Williams et

al., 2009),

(Elahi et al., 2009).

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(Lomarev et al., 2006).

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« » (Allen et al., 2007), BDNF (Dileone et al., 2010), (Cho S.S., Strafella, 2009).

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( , , 2006).

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(Amico et al., 2008; Vedral, 2008).

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## Заклучение.

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