

# The Effect of a Vocal Loading Task on Vocal Function Before and After 24 Hours of Thickened Liquid Use

Mary Gorham-Rowan Alyson Berndt Matthew Carter DOG Richard Morris

9DOGRVWD 6WDWH 8QLYHUVLW\ 1 3DWWHUVRQ 6W 9DOGRVWD \*HRUJLD

8QLYHUVLW\ +RVSLWDO \$XJXVWD \*\$

)ORULGD 6WDWH 8QLYHUVLW\ : &ROOHJH \$YHQXH 7DOODKDVVHH )ORULGD

**Corresponding author** ODU\ \*RUKDP 5RZDQ +6%& 'HSDUWPHQW RI &RPPXQLFDWLRO 6FLHQFHV DOG  
7HO [PPJRURDPOZRZDQ#YDOGRVWD HGX](#)

**Received Date** 2FWREHU **Accepted date** -DQXDU\ -DQXDU **Published Date**

**Copyright:** \*RUKDP 5RZDQ O HW DO 7KLV LV DO RSHQ DFFHVV DUWLFOH GLVWULEXWHG XQG  
XQUHVWULFWHG XVH GLVWULEXWLRO DOG UHSURGXFWLRO LQ DQ\ PHGLXP SURYLGHG WKH RUL

## Abstract

**Objective:** 7R GHWHUPLQH WKH

0HWKRGV

3DUWLFLSDQWV

\$SSURYDO IURP WKH 9DOGRVWD 6WDWH 8QLYHUVLW\ ,QVWLWXWLRQDO 5HYLHZ  
%RDUG ZDV REWDLQHG SULRU WR HQUROOPHQW RI SDUWLFLSDQWV LQ WKH VWX  
)RXU IHPDOH DQG WКУНН PDOH VSHDNHUV WR \HDUV RI DJH YROXQWHHUG  
WR FRPSOHWH WKH VWXG\ 3DUWLFLSDQWV ZHUH UHTXLUHG WR H[KLELW D GRUP  
YRLFH TXDOLW\ KDYH QR KLVWRU\ RI YRLFH GLVRUGHUV DQG EH IUHH IURP FRO  
RU DOOHUJ\ V\PSWRPV RQ WKH GD\ RI WHVWLQJ \*LYHQ WKDW WKH SURWRFRO IR  
WKH VWXG\ LQFOXGHG SUH H[SHULPHQWDO IDVWLQJ VHVVLRQV SK\VLFD O H[HUFL  
DQG D SRWHQWLDO FKDQJH LQ OLTXLG IRRG LQWDNH > @ SUHFDXWLRQV ZHUH  
WDNHQ WR LQVXUH WKDW WKH YROXQWHHUV ZHUH KHDOWK\ HQRXJK WR SDUWLFL  
LQ WKH VWXG\ 3UHFDXWLRQDU\ PHDVXUHV LQFOXGHG HVWDEOLVKLQJ

ORDGLQJ ZDV IRXQG IRU S' RU 1+5  
 ) S' 6LPLODUO\ VWKLUFDZDW QR  
 PDLQVHRW YRFDO ORDGLQJ XSRQ DQ\ RI WKH DFRXVWLF RU FHSVWUDO  
 SDUDPHWHUV REWDLQHG GXULQJ FRQQHFWHG VSHHFK > 6)) )  
 S ' 5// ) 'S &33  
 ) S' / + 5DWLR ) S  
 ' @

Participant	Age	Sex	BMI	Pre USG (g/ml)	Post USG (g/ml)
		)			
		o			
		)			
		o			
		o			
		)			
		)			



9HUGROLQL . 7LW]H ,5 )HQQHOO \$ HvRUWHSBQGNDCRIS\$SKRODFWNU\, /HSS:QHQ . 9LO  
RQ K\GUDWLRQ OHYHO - 6SHHFK +HDU 5HV PHDVXUHV DQG VHOI UHSRUWV RI YRFDO IDV  
)LVKHU .9 /LJRQ - 6REHFNV -/ 5R/HFRV 3KRQDWRU\  
ERGXLGHPRYDO - 6SHHFK /DQJ +HDU 5HV /DXNNDQHQ \$0 .DQNDUH ( 9RFDO ORDG  
9HUGROLQL . 0LQ < 7LW]H ,5 /HPNH - %URYHDFKHWVDOYRLFHV%LQDHWLZBUNLQJEIRUH  
PHFKDQLVPV XQGHUO\LQJ YRLFH FKDJQHV GXRQRDGHKUBSVLQR - 6SHHFK /DQJ  
+HDU 5HV -uQVGRWWLU 9 /DXNNDQHQ \$0 9LONPDQ ( 9RFDO ORDG  
6RORPRQID]H /( \$UQROG 55 YDQVHFUWEDUJYSHHFK GXULQJ D ZRUNLQJ GD\ ZLWK DQ  
YRFDOO\ IDWLJXLQJ WDVN DQG V\VVHPLF K\BISOLRFDWLQDQJCRQLDVLFRJRS9RLFH  
SUPVWURQJ 5% 0HFKDQLVPV RI H[HUFI  
9HUGROLQL 0DUVWRQ . 6DQGDJFM 0K\GUDJMLRQXVFXODU VRUHQHVV D EULHI UHYLHZ 0HG  
WUHDWPHQWV RQ ODU\QJHDO QRGXOHV DQG)SRONSIV/DSZDGDGDWHEUYKDPFBRZDDVUBRUUL  
9RLFH RI IDWLJXH GHOD\HG RQVHW PXVFOH VRUH  
\*RUKDP 5RZDQ 0 &RVWRQ - \$QDO\VLPHDRXUHSRHFVODLQXBYHQQWKURVPSXFNEDU H  
SDWKRORJ\ JUDGXDWH VWXGHQWVdHUGHWLHVHPXODVWRQFQQHGV505KLGROQV\QJRO  
\$OOLHG +HDOWK 6FL 3UDF DUWLFOH )RZOHU / \*RUKDP 5RZDQ 0 +DSQHU (5  
6LOYD 53 0%QGHO 7 \$OWR« -/ 6DOGDQKD YRLFHFUQDUBVVRFLDWHG ZLWK KHDOWK\  
3UHH[HUFLW\$HFKUJEDYHLW\IDGGWDNH GXULQJ RQHFKRXLFDQ VWLFXODWLRQ WR ODU\QJHDO  
UXQQLQJ LQ D WKHUPRQHFWUDO HQYLURQPHQWKSUBSGBRQLHGRZORUV/RYSBQHWXG\ \$  
- 6SRUWV 6FL 0HG FKDJQH LQ GRUPDO VSHDNHUV IROORZLQ  
&DVD '- 6WHDUQV 5/ /RSHJ 50 \*DQLR 06 0FVLPXODWVRSQVWRHVS\$HODSHQDEDO DUHD  
,Q~XHRFK\GUDWLRQ RQ SK\VLRRJLFDQ IXQFMLRQYDQJSSHPDRPRDQGH<GXXIEDUW ( <DLQD  
WUDLO UXQQLQJ LQ WKH KHDW - \$WKO 7UDLQK\GUDWLRQ DPRQJ ORQJ WHUP FDUH HOGH  
\*RUKDP 5RZDQ 0 :DJJHQU \* 0RUULV 5 )RZGMSKDJLD %HRRQVDFRWDWH  
OHYHOV DVVRFLDWHG ZLWK QHXURPVVFXODRISHPDFWULFDQ3UVRPVRXQDWQRQVUWRLRQKHLQ  
ODU\QJHDO DUHD 3DSHU SUHVHQWHG DW WIKHVLGWRV\$QDQXKQPHLFRU6PSRVRXQLW\ 1XUV  
&DUH RI WKH 3URIHVVLRRQDO 9RLFH 6LYDQDQDU 0 )LVKHU .9 2UDO EUHDW  
/DJRULR /\$ &DUQDE\ 0DQQ \*' &UDU\ 0\$ 7UHDWPHQW RI YRFDO  
IROG ERZLQJ XVLQJ QHXURPVVFXODU HOHFWULFDQ VWLFXODWLRQ \$UFK  
2WRODU\QJRO +HDG 1HFN 6XUJ  
/DXNNDQHQ \$0 -!UYLQHQ 0 \$UWNRVL 7 :DDUDPDD 0!NL .XOPDOD 7  
.DQNDUH ( HW DO &KDQJHV LQ YRLFH DQG VXEMHFWLYH VHQVDWLRQV  
GXULQJ D PLQXWH YRFDO ORDGLQJ WHVW LQ IHPDOH VXEMHFWV ZLWK YRFDO  
WUDLQLQJ )ROLD 3KRQ /RJRS